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REALISM VERSUS RELATIVISM IN ETHICS.¹

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It is a condition of progress in any science that relativist confusions should be removed; it is also the case that, prior to the development of theory in any particular field, relativist views prevail. This is exemplified in the fact that popular views on all subjects are deeply imbued with relativism—a fact recognised by Socrates when, in the course of his attack on the relativism of the Sophists, he called the public “the great Sophist”. On the other hand, however primitive the current conceptions of any subject may be, they are always to some extent realistic; they deal with certain real things. These things, then, being treated in a relativist fashion, are actually taken as confirming the relativist notions with which they have been associated. The development of science thus requires a criticism of popular misconceptions, and the work of disentangling reality from fiction is all the harder, the more deeply the confusion has become embedded in popular thought, and (a substantially equivalent condition) the nearer the subject lies to the centre of our interests and the more it is played upon by our hopes and fears. Now this is particularly the case in regard to human affairs themselves, and it is on this account that the sciences of man and society have made so little progress, and have been so entangled in relativism, as compared with the sciences dealing with non-human material.

The beginning of modern science with the Milesians was bound up with the rejection of mythology, the rejection of the explanation of natural events by non-natural “powers”, supposed to lie behind these events and occasion them. What is thus rejected is relativism, *i.e.*, the conception of something whose nature it is to have a certain relation—in this case, *that whereby* an event happens; its hidden cause or hidden meaning. It is necessary for science to reject such conceptions, because if, *e.g.*, we know something only as that which caused an event, then we do not know what it is itself, and therefore we do not

¹ An address delivered in the University of Sydney on 22nd August, 1932, at a joint meeting of the Australasian Association of Psychology and Philosophy, and Section J of the Australian and New Zealand Association for the Advancement of Science.

know *what* causes the event or even that anything causes it. Certainly it is possible for us to know that an event has a cause without knowing what that cause is, but this is only because we have previously had experience of one event causing another, *i.e.*, of causation as a natural or historical relation between natural or historical things. Extension of knowledge is possible, then, if we view things naturalistically and reject all conceptions of mysterious powers, of ultimates and higher realities.

This applies as much to ethics as to any other science. If there is to be any ethical science, then ethical ultimates or powers, moral agencies above the historical facts, must be rejected. If we are to say significantly that ethics deals with goods, we must be able to exhibit goods as going on, as definitely located activities, just as we exhibit moving bodies or growing plants. This, as has been said, may be a difficult undertaking; disinterested inquiry, the exact determination of issues, the consideration of just what goods are and how they operate, may more easily give way to prejudice than in the case of subjects which touch our interests less nearly. But it is still possible, and recognition of relativism as a foe to science advances the possibility.

The most obstinate confusion obstructing the growth of ethical knowledge lies in the assumption that ethics teaches us how to live or what to live for, that it instructs us in our duty or in the approach to the moral end. It may, indeed, be admitted that, having studied ethics, we shall be able to do things that we did not do before. But this applies as much to the study of mathematics or physics as to the study of ethics; it is a consequence of the fact that studying is a part of our behaviour and influences other parts of our behaviour. It cannot on that account be said that what is studied is our behaviour, and that mathematics, *e.g.*, instructs us in our mathematical duty and shows us how to reach the mathematical end (how, for instance, to reach infinity). Knowing mathematical facts, we can do certain things; knowing ethical facts, we can do certain other things. It is thus possible to speak of "applied mathematics" and "applied ethics". But if we are going to call the latter "application" our moral behaviour, we may equally well call the former our mathematical behaviour.

Now it may here be said that our behaviour, and in particular our studying, has ethical characteristics. Of course that is so—though it has also mathematical characteristics. But this is not to say that in ethics we are studying how to behave; nor is it the case that, if in the course of our ethical inquiry we find out that study, including ethical study, is a good thing, this means that there is any study which studies itself. What we are doing as ethical theorists is to discuss certain activities and state their characteristics, to examine certain propositions and

see whether they are true or false. What we shall do, once we make up our minds on the matter, is another question entirely ; and, as was indicated, our mathematical beliefs affect our conduct just as our ethical beliefs do.

Ethical realities, then, are concealed, the statement of true ethical propositions is hindered, by the confusion of the assertion of such propositions with the adoption of a policy. The confusion works in both directions. When we say that something is good, we are supposed to be stating a programme of action for ourselves or for others ; when we adopt a certain line of action, we are supposed to be assuming or indicating by example that that line of action is good. In line with this confusion are to be found such expressions as the desirable, the serviceable or the justifiable. They are all relativist, in that they imply the existence of that whose goodness consists in our pursuing it or saying it is to be pursued. And they all obscure the fact that the possibility of a policy, of the " application " of knowledge, depends on the fact that, when we want something and find that it goes along with or is led up to by something else, we can, by producing the latter, get what we want. Whether what we want is good or not is a question still undetermined. But the relativist confusion leads to its being taken as good, and thus to the obscuring of the objects of particular policies.

Now the leading moral theories, up till quite recently, have all had such relativist confusions embedded in them. They all assume certain higher moral powers *whereby* historical events can have moral characteristics in a secondary sense, just as the metaphysician assumes an ultimate reality whereby historical appearances can have a subordinate reality and be graciously permitted to appear. The main relativist conceptions to be considered are those of " obligation " and " end ". The obligatory is that which is essentially demanded of us or that whose nature it is to command our obedience. The end is that whose nature it is to be pursued or which is the goal of striving. Upholders of the former, more rationalistic conception admit that we may refrain from doing our duty but its binding force remains. The more idealistic exponents of the end consider that every striving takes us, however slightly, towards the goal, just as every belief has some degree of truth. The main point is that in either case historical behaviour is alleged to be judged by reference to an unhistorical standard.

Socrates, in the *Republic*, upholds this teleological relativism ; yet we find him, in the *Euthyphro*, refuting Euthyphro's moralistic relativism ; and the logic of the matter is the same in either case. If the obligatory (whether it is a question of " religious duty " or any other) is *what we are to obey* and the end is *what we are to pursue*, then nothing at all has been said as to what

these things themselves are ; we do not know what to obey or to follow. If, on the other hand, we are not fobbed off with relativist conceptions but are given some specific commands or objectives, then we find them to be just as definite historical events as the things they are related to. In a word, when relativism is removed, we are left with simple historical relations of commanding and seeking—A wants X ; B is commanded by C to do Y—and what is moral or good about X or Y does not appear. Nor does it appear that there is any question of what A or B “is to do ” or would be “justified ” in doing or would have “reason ” to do. We are simply presented with the wants of persons and the interaction of these wants.

At the same time, the use of these relativist or transcendental notions, necessarily vague as they are, makes it possible to advance certain unspecified demands, which would be opposed if mental confusion were removed. Socrates and Kant, each with his conception of some unconditioned moral power or moral reality as in some way governing historical existence, argued fallaciously, in the name of logical consistency, to the obligatoriness or virtuous character of certain forms of behaviour. Only moral scepticism can follow from the conception of an end not definitely known but “progressively determined ” by our action, or of a pure will which wills itself ; any action is as “justified ” as any other on such a basis. But the mystical sanction which appears to have been given to the conduct taken as orderly or as universalisable, can easily impose on the simple-minded. The line of criticism here is to say—this action is not required by “the good ” or by the “moral law ”, because there is no such thing ; by whom is it demanded, then, and what is his policy ? It is not surprising that the Athenians looked for Socrates’s political affiliations, when he claimed to take the pure moral stand.

While, then, it is absurd to say that we study ethics as a means of determining what to do, it is equally absurd to say that there is any such question as “What am I to do ? ” The question of what conduct can be “defended ” or what conduct is “reasonable ” under certain circumstances is a question in pseudo-ethics. Conduct will be defended by a particular person if it is or leads to what he wants ; if there are persons who want good, then the goodness of certain conduct will be accepted by them as a “reason ” for it. But it is not the case that policies in general have anything to do with goodness, and it has yet to be established that goodness has anything to do with policy. And any such point can be established only if it is shown that what is good is not “the defensible ” or “the reasonable ” but some definite historical activity, a *force*, in the sense of something which can act, though also capable of being acted on.

The task of the ethical theorist, then, will be to find goods and consider their ways of working, and in this connection he may well find how they are promoted and how prevented. His study will thus be a thoroughly deterministic one. The relative notions of good or right as the commanded or advised or wanted are connected with the metaphysical conception of human freedom—a conception which, with its division of reality into higher and lower orders, agents and instruments, is rooted in mythology and has played havoc with all the anthropological sciences. The suggestion is that things go on in their historical way until at some point “we” step in and alter their direction for the better—or the worse. To accept a view of this kind would be to give up all science; for we should never know what agent (“that which can use”) might be operating on what instrument (“that which can be used”) at any time, and we could assert no “law of nature”. But, of course, to assert the operation of any agent is to have found that agent as a historical entity and one just as subject to influence, and having as determinate ways of working, as anything he could act on.

We do not, in fact, step out of the movement of things, ask “What am I to do?” and, having obtained an answer, step in again. All our actions, all our questionings and answerings, are part of the movement of things; and if we can work on things, things can work on us—if they can be our “vehicles”, we also can be vehicles; social and other forces can work through us. It is in respect of our existing activities, and not of any abstract “reasonableness”, that we ask what is to be done; indeed, it is our activities themselves that, as they proceed, raise and deal with such problems, for there is no unhistorical “I” apart from our activities. As already noted, then, ethical inquiry or, similarly, social inquiry may be one of our activities; it may exemplify the working of a social force through us or of a good force in us; but *what is inquired into* is how social forces or good forces do work, and not what is to be done. What is done, whether it is good or not, will be determined by the forces that exist.

Ethical theory, then, is not a policy. It consists of propositions to the effect that such and such things are good and that they work in such and such ways. But, of course, a student of ethics may have a policy. Investigation itself is a force or form of activity, into the working of which persons are drawn and as working in which they make demands and alter their previous demands. The operation of demands can also be studied. We can consider what is accepted and what is rejected by a certain community, by various social organisations or by persons—in studying the life-history of anything, we have to consider what it opposes and what supports or is supported by it. But this is enough to show that there is no question

of any "moral rectitude" or any connection with goodness in the matter. It is, of course, possible to take "right", as Moore suggests, to mean that which supports or leads up to good. But to say of such a thing that it has this effect is sufficiently plain, and avoids the relativism of "the commanded"—as Moore himself does not do when he speaks of certain actions as our duty. Historically considered, obligation can only mean constraint or compulsion, and this, it will be admitted, at least *frequently* prevents instead of promoting goods. It is better, therefore, to drop the term "right" from ethical theory, and it is necessary emphatically to reject the view that goodness has anything to do with obeying commandments.

At the same time it is of some ethical interest to consider the basis of the conception of rectitude, more especially as it can be urged that it was from a consideration of moral codes, of the recognised and the forbidden, that ethical theory, such as it has been, arose. Certainly we find Socrates, who may be taken as the first considerable ethical theorist, criticising the Sophistic and popular reliance on codes, pointing out their inconsistencies, attacking the relativist view that the code of each city determines what is right there. But he does so only to set up an ideal code, a supposedly consistent hierarchy of virtues, regarded, no doubt, as dependent on "the good" but certainly neither deduced by him nor deducible from the formal possibility of goodness or of an end. A consideration of the development of the conception of rectitude may at least help to show how it came to pass as an ethical conception.

In considering how there came to be *mores* in a community, we must start from the fact that that community is a historical force or set of activities. Now there are relations of support and opposition between any activity whatever and others surrounding it; and likewise we can say that any historical thing has its characteristic ways of working, ways which are variously affected by its historical situation. To say, then, that a society exists is to say that it proceeds along certain lines and that there are conditions favourable and conditions unfavourable to its continuance. Thus *mores* are, in the first instance, forms of social operation, the engendering of certain states of things and prevention of others. These may be called the demands or requirements of the society. But when the demands come to be formulated by members of the society (and this takes place through conflict among the demands of members), we have *mores* in the second instance—recognition of what is required and what is forbidden—we have especially the operation of taboo. So there develop from customary tasks and customary constraints the notions of right and wrong. It is to be noted, of course, that, just as certain organisms and certain organisations do not survive, so *mores* need not have survival value. They

are simply ways of working of that particular community in its particular environment; and a community may perish—or again it may change its *mores*, and such variations may have survival value or they may not. Customs, then, ways of social working, must exist if a society is to exist; but they are not to be understood in the “purposive” fashion, and they raise, of themselves, no question of goodness. Also there is no question of a total social morality; it is seen that there are conflicting demands, conflicting activities, conflicting forms of organisation, within the society; and the upshot of such a conflict may be that what was generally recognised or sanctioned ceases to be so.

If, now, in any society, good and bad activities are going on, they will be supported and opposed by other existing activities; and it may be that what passes as “right” is actually opposed to good activities, and that what passes as “wrong” supports them. It will scarcely be denied that this has been true of some societies. But the point is obscured by the teleological conception of “social welfare” as that which right conduct promotes and by the solidarist conception of a total communal morality, a general virtue which gradually develops and brings welfare nearer and nearer—though again it will hardly be denied that changes in *mores* take place under the influence of “wrong” activities. It appears, then, that the solidarist view does not hold, and that the description of certain events as “right” and “wrong” gives no “reason” for taking either side. Social forces work themselves out historically; goods act in their characteristic way and make their demands, even when they happen to be forbidden or opposed by the main social forces. If this were not so, we could only say that there are no goods, no objects of ethical study, but merely relations of support and opposition—relations such as can be found in any field whatever.

The question for ethics is thus to exhibit the working of forces of a specific kind, not to call for approval or support for them. It may indeed be contended that they support themselves and fight against opposition; and if it is said that persons do “advocate” them, it may be answered that this advocacy is the work of the good activities themselves in and through these persons. At any rate, to have a soundly realistic science of ethics, we have to discover goods as certain real things, just as real as we are, and not “expressions of our attitudes” or any other relativist fiction. The first important attempt to develop such a science was made by Moore in his “*Principia Ethica*”. Moore endeavoured to found an objective theory of goodness, and he contended that certain definite things were in themselves goods, æsthetic enjoyment and personal affection being great goods, and knowledge a good of less importance. It has to be acknowledged, however, that there is a great deal of relativism

in Moore's theory ; as we have already seen, he recognises duty, and his doctrine that good is an indefinable and non-natural object is connected with the conception of good as an end and as having higher reality than other things. At the same time, in accordance with his theory of the intuition of this entity, good would be a mere label or expression of an attitude, and not an independent force.

The question of what, on the realist understanding, are actual goods may be approached by considering what have been called goods. The use of the term "good" even relativistically for what is wanted shows that some recognition was taken to be given to goodness ; and the antithesis between good and bad, as contrasted with that between right and wrong, shows that a qualitative distinction was, however vaguely, recognised, and not a mere distinction between relations of support and opposition—though, indeed, there was bound to be a qualitative distinction between the sort of thing supported and the sort of thing opposed, but not necessarily, as we have seen, the ethical distinction.

Now one of the things that have been most widely recognised as good is investigation, and the fact that confused reasons have been given for this view is no indication of its falsity. Ethical theorists, being themselves investigators, might be regarded as suspect in this matter ; but since this suspicion, while leading to ethical scepticism, would itself imply some consideration of ethical matters, it cannot be seriously entertained. Investigation appears also as a means to goodness or, rather, to goodness misconceived as order, in the theories of Socrates and Aristotle, and this, it might be suggested, would lead to their attaching an undue importance to it. But if we pass over Aristotle's unsound distinction between goodness of character and goodness of intellect—unsound because to have a good character is simply to be good and this, for all Aristotle has shown, may involve intellectual activity, and because, even if to have a good intellect means only to be good at thinking, this still leaves it possible that intellectual proficiency is ethically good—we find that he regards the speculative life as the "highest happiness" or greatest good, and even as divine. In so describing it, he is distinguishing it from the human goodness with which he had previously been concerned. But this human goodness is simply that for which it is possible to legislate, and, in considering legislation for goodness before considering what is good, Aristotle is really substituting *order* for goodness, and even that problem cannot be solved on a merely legislative basis and without reference to the kind of order or system that is in question.

In suggesting, however, that the speculative life cannot be legislated for, Aristotle is bringing out the point that it legislates for itself or, as he puts it, that it is of all activities the most

self-sufficient, as well as being capable of the most continuous exercise. This is connected with the common recognition of goods as "existing for their own sake" (as in Moore's conception of "intrinsic value") and of goodness as being exercised "disinterestedly". Divesting these conceptions of their metaphysical accretions, and not considering goods as existing unconditionally or as "self-subsistent", we find, as marks of investigation and as possible marks of any good, that it is a human activity which communicates itself (investigation giving rise to investigation), which is possible under all conditions (there being no situation which is not a subject for investigation), and which produces the materials for its own continuance (with the reservation that it can be destroyed by opposing activities).

We thus have a distinction between productive or ethical goods and economic goods or goods of consumption, a distinction connected with that commonly made between disinterestedness and interestedness, and with that drawn by Sorel (in "Reflections on Violence") between the ethic of the producer and the ethic of the consumer. The latter is that which attempts to treat all goods as objects of want and all actions as interested; it is the doctrine of utilitarianism. It may be answered briefly by referring to Butler's theory of the disinterestedness of our passions, the fact that they do not act by calculation, and still more to the consideration that we cannot treat investigation and all other human activities as mere objects of want, because it is our activities themselves that want—a position which has its economic counterpart in the fact that, however demands may operate and though there may nominally be a price for everything, actual exchanges depend upon appropriations and other preconditions of demand. It may also be said that it is the conception of good as the wanted that leads to the view that not all goods are human activities, Moore, *e.g.*, referring to the operation of our preferences in order to prove that natural beauty is good, and being anxious, incidentally, to show that goods have no common quality but their goodness, in order to save his theory of the indefinability of good.

The conception of the productiveness of goods leads to the view that production is itself a good; it fulfils the conditions mentioned in the case of investigation, and it also assists and is assisted by investigation. Indeed, we find investigation flourishing where production is developing, and the assistance given by science to production is equally well marked. Similar considerations apply to æsthetic creation and appreciation; in fact the distinction between these forms of activity is hard to draw; the artist and the investigator are producers of a sort, the producer is in some measure an artist and an investigator. But as we broadly distinguish between Science, Art and Industry within a social culture, so we may broadly distinguish scientific,

artistic and productive activity. The recognition of them all as productive is in accordance with the Marxist conception of society as organisation for production, of production as socially fundamental. And this would suggest that there had been goodness, as we certainly can say there has been disinterestedness, in all society—a fact which would help to explain the lip-service rendered to goodness by ethical relativists, which would show, indeed, that a real subject was being dealt with, even though it was maltreated as a matter of commands and wants.

The finding of interrelated goods within the various cultural fields does not, however, support the hypothesis of social solidarity, of a gradually emerging and progressively defined social welfare. On the contrary, we have to recognise that what is good in social culture has had to fight and still has to fight for its existence; that science is faced not merely by open obscurantism but by obscurantism and scepticism masquerading as science; that waste passes for industry, and that luxury is paraded as art. Goods, as social forces, as forms of organisation, are engaged in struggle, and develop ways of working in that struggle. It is such ways of working that constitute a "morality" or code of rules, but, of course, only as the morality of certain forces and in opposition to other *mores*. It is such a morality that Sorel calls "the ethic of the producer"; he recognises as the characteristics developed by the working-class in the course of its struggle, and in opposition to bourgeois morality, the qualities of initiative, emulation, care for exactitude and rejection of the notion of "reward". Such *mores* form part of what Marxists call proletarian ideology, an ideology being a general outlook on social questions, a set of attitudes which hang together, being ways of working of the productive activity. It would be urged that bourgeois ideology, being rooted in consumption, is at once less coherent and less socially necessary—indeed, that it is, at the present stage, anti-social; opposed to the continuance of organisation for production and thus to the continuance of the conditions of the possibility of goods.

It will be seen that this theory explains how it is possible both to confuse and to distinguish between morals and ethics, between the required (for some way of living) and the good (which is itself a way of living). But, apart from detailed considerations of social history, the theory of goods as historical forces enables us to dispense with the conceptions of end and right, and with all the confusions they carry in their train; in particular, with such problems as that of the moral faculty or of the "inducement" to goodness. Goods are found to be forces operating through persons, developing their own methods, fighting with the evils of interestedness or consumptiveness. We find, too, that we can describe them as working freely, not in the metaphysical sense, but as showing initiative as contrasted

with compulsion and repression. No more than they are uncaused are they lawless, but they have their own ways of working, securing their continuance, establishing solidarity among those who participate in them. It is, of course, possible for goods to be destroyed, by natural accident or social opposition, but while they exist they go on propagating themselves.

It is not denied, then, on the basis either of the deterministic working of goods or of the struggle between goods and bads, that "moral appeal" or persuasion is possible. But there are limits to persuasion and discussion. It can take place only under definite conditions, *viz.*, where there are common ways of living, common demands arising from communicating activities; and under these conditions it does take place. There is no appeal to a metaphysical conscience or to a metaphysical welfare, though people are deluded into thinking that there is. Indeed we see, in connection with the notions of welfare, that economists as well as moralists fall into relativist confusions. The historical and deterministic treatment of goods is, in fact, only one example of the removal of metaphysics from science, the establishment of all scientific objects on a single level of investigation. And in thus upholding a logic of events, realist ethics helps to free philosophy from the confused ethics in which metaphysics is rooted—from the conception of "higher realities", that is to say, preferred delusions.

THE ETHICS OF NICOLAI HARTMANN. I.

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NICOLAI HARTMANN'S "Ethik", published in 1926, marks a turning-point in the history of Ethical Science. Realist in its spirit and treatment, it remains true to Idealism through its Platonic foundations, and to Positivism through its rich and systematic analysis of moral experience. Its central conception is that of *Value*, and the detailed examination of values is regarded as of basic ethical importance. It is our author's belief that in and through a close study of the concrete content of moral values, not only will the integrity of the ethical idea, its sharp distinction from all other types of value—religious, æsthetic, economic—be best preserved, but, consequent on the opening up of new ethical ground, moral philosophy will be set on a progressive footing, the inner unity of ancient and modern ethics will be freshly disclosed and a new synthesis eventually effected. The ethical man must above all things be a seer of values, alive to the fulness of the values of life (I, 45), his conscience or moral consciousness must be a primal consciousness of value (I, 200), and he must first grasp the moral order as a vision and through his feeling. It is indeed essential for a sound progressive ethics that this vision and this feeling, in all its richness and variety of positive content, should be the ultimate repository of ethical knowledge, determining not only its nature but also its limits. We are sure that readers of this new Ethics will discover to their lively satisfaction that our author's detailed analyses—in Part II more particularly—open up a fresh realm of reality, and supply a living and trustworthy basis for a new ethical system and synthesis.

But whilst *ethical fact* is for Hartmann the primary consideration, he is fully aware of the latent complexities of organization—metaphysical as well as moral—which reflection on the moral phenomenon draws out and reveals, and his first concern is to analyse the structure of this phenomenon. This is the task to which Part I of the "Ethics" is devoted. But until we have decided what is valuable for life, we cannot know what we ought to do, seeing that we ought to do only what we see to be vitally valuable (I, 49). On these lines our author proposes to bring together in his synthesis of ancient and modern the two elements of *value* and of *obligation*, and Part II, which treats of moral values, aims at presenting that synthesis as a Moral Order.

The third and concluding Part of this impressive trilogy deals in an original and penetrating way with the underlying problem of freedom under the conviction that "if freedom be proved to be an illusion, the whole significance of morality is abolished". (III, 23.) Thus the whole work hangs compactly together, though the part-divisions cut fairly at the joints, and the treatment is so ordered that it is possible for a student to study intelligently the second Part, dealing with Moral Values, as an independent treatise. The English translation of Stanton Coit's (1932)¹ gives the three parts, and for all practical purposes most conveniently, in three separate volumes, but their separate contributions are in the last resort as organically one as are head, trunk and limbs in a living body.

The translation, we may add, is excellent, and conveys with convincing accuracy the author's meaning. It is only very rarely that a phrase suggests some obscurity in the interpretation and invites comparison with the original.² There is also a compact and helpful Index. For the staunch and able work of Stanton Coit and his collaborators in this translation, one can have no feelings other than respect and gratitude.

In Part I, as we have already noted, Hartmann's analysis aims at exploring the structure of the ethical phenomenon.

¹ Stanton Coit's translation is an Authorized Version. It is included under the title of "Ethics" in the Library of Philosophy, published by George Allen & Unwin, Ltd. The General Editor of the Library Series contributes a short but valuable Introduction.

² In my own case, on first reading the translation, the warning obscurity met me on an average once in every hundred pages or so. For the convenience of readers I submit with some diffidence the following attempts at substitute versions:—

I, 209. In place of "As regards the subject and his sense of value it bears the mark of self-existence. Its absoluteness includes the self-existence of its relevancy", I would suggest "In relation to the subject and his sense of value, it bears the mark of self-existence. Its absoluteness includes the self-existence of that relationship." ("Ethik", 127.)

I, 242. In place of "are not merely categories of existence, but prevail only in a very conditional manner", I would suggest "are not categories of existence in an unqualified but only in a very qualified sense". ("Ethik", 152.)

I, 311. In place of "What ought to be stands on this side of existence—at least on this side of the real. And it is fully positive only in so far as it is not real. But ontologically the necessary is *eo ipso* actual", I would suggest "What ought to be falls short of what exists—at least of what really exists. Only in so far as it is not real is it in the full actual sense 'that-which-ought-to-be-real'. But ontologically the necessary is *eo ipso* real." ("Ethik", 201.)

I, 312. In place of "This regularity is inviolable, but only for the actual; not for that which exists this side of actuality and unactuality. But here what ought to be exists", I would suggest "This regularity is inviolable, but only for what really exists; not for that which falls short of reality and unreality. But what ought to be is precisely that which does so fall short." ("Ethik", 202.)

II, 109. In place of "irritates" I would suggest "disconcerts". ("Ethik", 294.)

II, 118. With a view to emphasizing the singly directed crescendo referred to in the text, I would suggest in place of "The federation, the united state, the league of states", "The federation, the federal state, the confederation of states". ("Ethik", 302.)

II, 328. Line 7 from end: "it" in place of "them". ("Ethik", 454.)

II, 449 ("Ethik", 546). Cf. also II, 457, 465, 467 ("Ethik", 552, 559, 560). In place of "indirect", I would suggest "inverse".

II, 451. In place of "In the fulfilment of a value the merit increases not directly in proportion to the grievousness of violating it, but indirectly", I would suggest "In the fulfilment of a value the merit increases not in direct but in inverse proportion to the weight of its violation." ("Ethik", 548.)

III, 209, line 9. In place of "finalistic nexus", read "causal nexus". ("Ethik", 699.)

III, 161, line 11. In place of "phenomena of interpretation", I would suggest "phenomena one may question". ("Ethik", 665.)

The term "phenomenon" is used, somewhat loosely perhaps, to indicate the datum through which the ethically real reveals itself. Thus the consciousness of self-determination "is a pervasive phenomenon which accompanies all human action and indeed every disposition and self-commitment" (III, 145), and it may be illusory. "All factual complexes which have names", we read (III, 144) "are, in their mode of objectivity, phenomena". More briefly (III, 182) phenomena are "facts of ethical reality". It is clear then that Hartmann's exploration into the realm of ethical phenomena will take the phenomena only as a starting-point. The real quest will be for the *essential* structures in virtue of which the phenomena deserve to be called ethical. It will aim at disengaging the ethical *essence*. What is it that gives ethical meaning to conduct and character, bringing in the normative note of obligation, and how are we to realise it? Plato's *Meno* here supplies the requisite indication. We lay hold of the ethical through "recollection" when the seer with moral vision draws out our own moral capacity and so puts us into direct touch with our own moral nature. Such vision is *aprioristic* since apart from it moral behaviour would have no moral meaning. Hartmann accepts and develops this hint from Plato. All ethical science rests on aprioristic vision. The primary consciousness through which we alone know good and evil is aprioristic, logically ante-dating all that can be called ethical in our life and disposition. "Here enters a knowledge *sui generis*, with its own laws, and its immediacy, an aprioristic intuition, which is independent of the *posterius* of actual phenomena, and of the part they play as guides" (I, 104).

The knowledge *sui generis* which is Ethics, rests in the last resort on the immediate insight of feeling. The original order of perception here is the *ordre du cœur* (I, 177), an *a priori* order of the emotions (feeling, preference, love, hate, volition) framed in independence of the logic of thought; and what it intuitively and aprioristically apprehends is *Value*.

With regard to *Value*, the fundamental concept of Ethics, Hartmann takes up a radically Platonic attitude. Values are *material* (in opposition to Kantian formalism): they possess ideal self-existence. They must be carefully distinguished from *goods* (material in quite another sense) which, in so far as they have value, have it through participation in ideal values. "In their mode of Being", we read, "values are Platonic ideas" (I, 184). We find value in an object or person and set up the latter for a pattern or exemplar; but it is ideal values which, as a producing *prius*, mould, determine and produce the pattern, and are the secret of the pattern's power to guide us (I, 197). "That things and their relations can be goods or evils; that striving can be directed towards them; that there are volitional

ends which themselves are ideal and yet are really determinant for actions; that there is such a thing as approval and disapproval of human conduct; that a conscience speaks directly in the depth of consciousness, accusing, imputing guilt, imposing responsibility—all this is conceivable only on the presupposition that values, as a determining *prius*, control the attitude which man takes up towards life" (I, 206).

As the prerequisite of goods, converting things into goods, values are *essences*. As essences—or sources of value—they have genuine and fundamental being, the being of ideality, "super-temporal, super-historical, unchangeable". As such they are a system of first principles which under certain conditions and limitations, connected with choice and purpose, may become the principles both of the actual and of real existence and shine forth as a specific quality of things, relations and persons, immediately discerned through a distinctive inner vision. Moreover, independent, primal and immediately evident as values are, they can be discerned only as present in a *posteriori* experiences through which they are "aroused, guided and stimulated" (I, 105). Values are apprehended only in and through phenomena: they are as it were *in* our experiences but not of them, and in this consists their apriority.

Values in their empirical embodiments may be and are apprehended as goods. Hence a fruitful source of ambiguity. Virtues are intrinsically values, not goods; but they are goods derivatively and incidentally. The doctrine of virtue as the highest good hampered the Ethics of the Ancients (I, 211). It obscured the *a priori* insight into the essential moral values which all goods presuppose. The ethical quality is one thing, the goods value another. The moral quality is a quality of the good as such as apprehended through the primary feeling of conscience. This cannot be identified with happiness. It is indeed of the essence of moral goodness to be *worthy of* happiness (I, 148), but not to be an actual state of happiness. Ethically, happiness, like pleasure, is a value, but a subordinate value only, and "the pursuit of happiness reacts unfavourably upon the capacity for it. Happiness as a moral postulate is an eternal requirement of the human heart; but 'endæmonism', as the morality of striving for it is a tendency which destroys itself, in that it systematically leads to an incapacity for happiness" (I, 151).

Can we prove that values exist? No,¹ but neither can we prove that things exist: we postulate their existence in the act of perceiving. Thus the belief in the ideal self-existence (of values) "stands entirely on the same level as belief in real self-existence". To doubt the one is to doubt the other.

¹ But cf. I, 227: "If anything is proof for the self-existence of values, it is the phenomenon of delusion."

Hartmann doubts neither. He affirms as a conditioning *prius* of all the phenomena of the moral life "a realm of values subsisting for itself, a genuine κόσμος νοητός which exists beyond reality just as much as beyond consciousness—an ethical ideal sphere, not manufactured, invented or dreamed, but actually existing and capable of being grasped in the phenomenon of the feeling for values".

So far the main stress has been laid on Value, as fundamental. At a later stage of the argument in Part I we discover, essentially implicated in the Value, the presence of the Ought. "Value and the ideal Ought-to-be are indissolubly bound together" (I, 248). The ideal Ought-to-be is the Value's own mode of being. Its essential dimension is axiological, connecting the value at one pole with the disvalue at the other, and the fundamental law of the Ought-to-be is the unequivocal tendency towards the positive pole, the Value. Thus moral values are inseparable from the obligation to realise them, the obligation expressing a claim, but no coercion: moral values ought to be, and "the Ought-to-be is through and through an Ought-to-be-real" (I, 304). From this *ideal* Ought-to-be intrinsic to Value Hartmann distinguishes the *positive* Ought-to-be. The Ought-to-be proceeding from Values becomes positive "where the ideal finds itself in opposition to reality" (I, 249). It then acquires a positive tendency and dynamic. But if an ideal power is to affect reality dynamically it must find a point of support, a fulcrum in the real world, a carrier. The empirical actual subject, just as we know it in men, is precisely such a carrier. It alone is naturally qualified to be grasped by the ideal power of values, and through it alone the Ought-to-be can be transformed into a real tendency.¹ The ideal Ought-to-be as such is as indifferent to the subject as to any and every real existent. The positive Ought-to-be is not indifferent to the subject, cannot in fact dispense with it as an agency offering its own existential energy to be directed by the Ought. Thus the Ought, and therefore ultimately the Value, determines reality through the practical subject—a medium which senses values and is capable of directing events (I, 259).

We here reach "the central point in the ethical problem" (I, 261), the point at which the personal subject emerges as the agent alone capable of introducing the Ought into existence, taking values up through the Ought and transforming values into ends of volition. In so far as the subject is free in relation to the values he discerns—their claim upon him involving no coercion—and in so far as, in addition, the values in question are moral values, he assumes the dignity of a person. The moral essence in man, that which gives him his personality, is

¹ Not easy to reconcile, apparently, with what Hartmann says of Values as "genuine first movers" (I, 272).

the power he possesses not only to be the bearer of moral values, but to carry them freely into effect in the world of reality.

The next step in the development of the argument brings up the problem of Teleology, which Hartmann introduces through his important analysis of "the finalistic nexus". How can the Ought-to-be be actualised? Only in and through the formation of a finalistic nexus. The dynamic of the whole procedure is "the attraction issuing from the final end". Hence the first link in the finalistic nexus is the overleaping of time restrictions and the conscious positing of the end. The second link—distinctive of the finalistic process, and, like the first link, existing only in consciousness—is the working back from the end through the means, from the proximate to the more remote means, stage by stage, and counter to the flow of time, till the first means close to the subject is reached. Hartmann refers to this as the "return determination". The third link is the attaining of the end through the series of means, the interdependence of which is now strictly causal. It is the purely causal character of this concluding phase of the finalistic process which explains the natural adjustment of finality to the conditions of real existence. "The finalistic determination inserts itself without opposition into the causal, precisely because the course of its own actualization is itself causal" (I, 277)—whence Hartmann draws the significant conclusion that finalism, far from presupposing indeterminism, presupposes a world causally determined. No less significant for the standpoint of his Ethics is his disengaging of the elements of "providence" and "predestination" from the finalistic process, and his emphatic insistence that these functions are distinctive of the nature of *man*. Without denying "a providence of the Almighty" he states that it can never be known or proved, and that we are free to regard teleology as "the peculiarity of human nature" (I, 282). Now if teleology is distinctively human it must follow that every attempt to give teleology an all-inclusive cosmic bearing must result in anthropomorphism. The cosmos is then given a character proper only to man, and the prerogatives of human nature are stultified. "A thorough cosmic teleology utterly nullifies Ethics." It is a theory of cosmic predestination "and leaves fatalism as the only standpoint for man" (I, 288). We must therefore choose between the claims of the moral consciousness and the claims of a teleological metaphysic. Hartmann, with his respect for facts, does not hesitate. Facts are of greater weight than theory, and Ethics moreover "is not to be corrupted by any philosophy" (I, 288). But the main argument on which Hartmann's rejection of teleological metaphysics ultimately rests is one that is basic for his whole study of Ethics proper, and contains a profound and illuminating insight. It is a law of the grading of categories,

we read, that "every higher category unifies the lower ones in a new way, and is a higher formation which rises over them as over a material". The lower categories are the more independent, the more unconditioned, the higher are dependent on the lower and conditioned by them. Indeed, the new and higher formation "can become active only within the range which the lower categories leave undetermined". The higher "cannot suspend the action of the lower; it can form a higher structure only upon a lower and with it as a building stone. In short, the lower categories are the stronger, the higher are the weaker" (I, 289). With these statements must be coupled others made by Hartmann in a previous connexion (I, 251): "Dependence and superiority are not in antagonism to each other. In the graded realm of principles it is precisely the dependent which is always and necessarily at the same time the superior: the higher principle is always the more complex, more conditioned and in this sense the weaker; but the lower is always the more unconditioned and more general, more elemental, and in this sense the stronger, but at the same time the poorer. The higher cannot dispense with the lower nor break through it; it can construct nothing by violence against the lower determination, but upon the lower as a basis and upon its structure it may well form another and higher edifice. In this alone consists its superiority." If we accept this analysis of the relation of higher to lower we cannot make the causal nexus dependent on the finalistic as teleological metaphysics necessarily does. A causal nexus must be admitted that is stronger than the finalistic, so that the latter must adjust itself to it, and presuppose its independent existence. Thus the teleology which holds good for man cannot be universalised and given a cosmic scope, thereby transferring all predetermination to the Absolute and stultifying man's freedom. The causal nexus remains unsublimated, but we must note that it cannot threaten man's freedom as it contains no predetermination which could not be changed. "The causal nexus is at the disposal of every power which is in a position to enter it as a partial cause." But man's powers of foresight and predetermination are limited, the limits marking the intrusion of the accidental into experience. The opposite of the accidental is not the caused, but the foreseen. Accident is an exclusively teleological concept. "It exists only for the teleology of man . . . Ontologically he is just as thoroughly determined as everything else" (I, 294). Human teleology is thus limited by its restricted power of prevision, but also by "the great causal stream of cosmic events". It is further limited by the insoluble dilemmas in which, under given circumstances, one moral value conflicts with another. Hartmann holds that these conflicts between moral and moral, rooted as the antagonism must be in the ideal realm of values, cannot be

controlled by man whose freedom reacts only to the real world. "They would set a limit to the harmony even of a divinely perfect, of a world-ruling, providence and foreordination." (I, 302).

In the chapter on the Modal Structure of the Ought Hartmann gives an original analysis of the type of freedom that pervades teleological necessity in its character as a *tendency* and has its roots in the Ought itself. Such freedom is ethically fundamental, being an essential precondition for the freedom of the will. "It is the autonomy of the ethical principle." (I, 314.) Hartmann refers to it as "free necessity". The term "necessity" is ambiguous. There is the purely logical necessity which connects conclusion with premisses in a syllogism, and there is ontological necessity. When all the conditions on which the emergence of something depends are present, so that the actuality of that something first becomes possible, possibility and necessity pass together into actuality. What is at the same time possible and necessary is actual. Necessity of this ontological type—"the Being involved through the totality of conditions"—belongs therefore to the essence of actuality (I, 307). But there is "a more fundamental meaning of necessity" (I, 313), namely, "the tendency towards something" which is ontologically impossible, *i.e.*, unable to be actualised owing to the absence of essential conditions. The tendency thus remains tendency, the tendency of endeavour—conative, teleological, showing "self-dependence in face of present actuality" (I, 314), and its last root is in the Ought itself. Such necessity is axiological, value-determined: it is free-floating, detached, free. There is thus a freedom inhering in the Ought itself, animating every tendential necessity, and more fundamental, as has already been stated, than the freedom of the will, which is that of a personal subject in face of the Ought.

We are thus brought by a natural transition to the consideration of personality in its ultimate moral relationships. Personal Being, we are told (I, 317) is, in conjunction with Value and the Ought, "the central concept of Ethics". In a previous context (Ch. XIX), when considering the position of the Ought towards the subject, Hartmann had emphasized the essential part played by the subject as mediating between the Ought and the Ideal Values on the one hand, and Reality on the other (*cf.* I, 257, 262). But on page 261 the reference to the subject is made more specific, and we are told that "a personal subject . . . alone can introduce the Ought into existence" (*cf.* also I, 266). In Chapter XXIV the "person" is clearly and decisively differentiated from the subject. The subject is the more fundamental basis of individuality which the person presupposes. There can be no person who is not also a subject, but the reverse does not hold good. To be a person a subject must be a carrier

of moral values and disvalues (I, 317). As such he is an axiological entity, whereas as subject he is a mere ontological entity. "As a categorical form a subject is a presupposition of a person. Personality is the higher and therefore the more fully conditioned; but the subject is the lower, and therefore the conditioning form (cf. II, 108). In the subject the ethical carriership is lacking; the subject as such is not a fulfiller of acts ethically relevant. To be a subject a man need only be conscious. He must be morally conscious to be a person (III, 92). The relation between I and Thou is, on Hartmann's view, a relationship peculiar to persons, being "a purely ethical contrast" (I, 324). In relation to things the personal contrast is between self and not-self. Now in elaborating these various distinctions, and in certain further developments (Ch. XXV) Hartmann has in mind the views of his predecessor Max Scheler, and the relations between the two thinkers has a special interest, and we propose to discuss them later. Suffice it to say here that Hartmann's special concern throughout is at once to free the world from any dependence on a human subject, and to concentrate morality within the personal subject. So-called "persons of a higher order" are fictions as they have not the necessary subjectivity, and Part I closes on a characteristically humanistic note: "The moral being is not the Absolute nor the State nor anything else in the world but, singly and alone, Man, the primal carrier of values and disvalues" (I, 343).

We pass on now to a critical appreciation of the "Ethics", or rather of its first Section. The two outstanding features of Hartmann's ethical system, as laid down and developed in Part I, are *the a priori basis* and *the nature and limits of the finalistic nexus*, with its restriction of teleology to man. We propose accordingly to make these the centre of discussion, starting with *the a priori basis*.

It is Hartmann's conviction that moral experience and aprioristic insight intimately interpenetrate. We cannot have the one without the other. The *a priori* is "never at hand ready made": it must be "aroused, guided and stimulated to activity" by phenomena, the "facts of ethical reality". Yet these facts would not be ethical were it not for the underlying values that can be discerned only *a priori* under the stimulus and guidance of experience. But this interdependence must not obscure the crucial point that our aprioristic insight into values is *sui generis*, fundamental, owing nothing to the conditions of present perception. Aprioristic insight, whether primary or reflective, is not only "the fundamental factor" (I, 105), but is "independent of the *posterius* of actual phenomena and of the part they play as guides". The primary consciousness of value

is then aprioristic consciousness. Consciousness—the primitive form of our sense of moral value—does no more than *reveal* these values. The values themselves, as the object of aprioristic insight, pertain to its subject-matter, not to its subjective form. As regards value, we read, the material aprioristic is “the decisive element” (I, 169). But we must beware of the ambiguity of the term “material”. As that which when combined with form gives the formed content, it is a necessary factor in the constitution of all discernible principles, *e.g.*, values, and values in this sense are material as well as *a priori*. But if by “material” we mean the matter of experience in and through which alone we can recognize the *a priori*, then the *a priori* is intrinsically independent of it. “Valuableness is something which through all differentiations always remains different from the material; a something which builds above it, camps over it, lends to it a glimmer of meaning, a significance of a higher order” (I, 218). The whole emphasis of Hartmann’s view of the *a priori* rests on its “materialistic” character in the former sense of the term, in pointed and intended contrast to the *a priori* of Kantian Formalism with its subjectivity and rationalistic purity. In opposition to Kantian Rationalism the aprioristic insight, we learn, is primarily a feeling or emotional sensing, though in reflection it takes the form of judgment. Hartmann does indeed admit the existence of a pre-judgment presupposed by judgment proper (I, 125), but is quite emphatic that thinking first begins with reflection, that “in reality not the slightest trace can be found in sense-perception of thinking or judging” (I, 174), and that the emotional *a priori* is independent of the intellectual *a priori* and equally original. The “*logique du cœur*” is *sui generis* and rests on principles other than those of formal intelligibility. Further, the *a priori* sensing of values is *eo ipso* a sensing of value-grades (higher and lower) (II, 46), and a sensing of them therefore as standards or norms (I, 216, 226; II, 365). But it is a sensing or feeling of them as “ideal essences”, and it is upon the ideal character of moral values as distinct from the real character of moral goods that the most persistent emphasis is laid.

Readers of Hartmann’s Ethics, realising the importance attached by the author to the *a priori* self-existence of Values and to the aprioristic character of our primary moral intuitions, are apt to be disconcerted by the scant explanatory analysis which Hartmann gives of the *a priori* and of the *material a priori* in particular: the light thrown on its essential nature is thin and wan as compared with the important place assigned to it in his ethical theory. The reason for this is not hard to seek. In the matter of ethical philosophy Nicolai Hartmann is Max Scheler’s successor. It is to the Ethics of Scheler, we read (I, 318), that the investigation of value owes its greatest

advancement, for it was Scheler who first laid the basis of a material and aprioristic Ethics of Value on the ruins of Kant's Formalism. Hartmann is constantly referring to Scheler, and on many special problems such as the tests of rank in the scale of moral values differs from and opposes him, the opposition being specially marked in the vital matter of the nature and scope of the teleological idea; but in the still more basic matter of a material Ethics of Value on a *a priori* lines he is Scheler's convinced follower. Scheler's work entitled "Der Formalismus in der Ethik und die materiale Wertethik" was first published in 1916; Hartmann's "Ethik" appeared ten years later. Hartmann considers that Scheler's criticism of the Kantian formalism and his defence of a materialistic apriorism are permanent gains for Ethical Theory, and is content to be brief where his predecessor has been so ample in his explanations and developments. We turn then to Scheler's work, and in particular to his exposition and defence of a material *a priori*.

Scheler was a phenomenologist of the School of Husserl, though in many respects its merciless critic. In one essential respect he remained till his death in 1928 true to his phenomenological basis, in respect namely of the *material a priori*. Recognition of the material *a priori* is essential to Phenomenology, for it is the distinctive tenet of the new movement that when we eliminate in a certain way the whole field of nature, the whole real, empirical world and its causal order in space and time, we still have left as the field of a new science the realm of pure, intentional Consciousness—a realm presupposed in all its richness of essential content by the cancelled world of nature, and therefore *a priori* in relation to it. Scheler accepts and develops this position. Indeed, common to the whole movement in all stages of its development from Husserl to Hartmann is this belief in a material *a priori*, more specifically, in a material Ethics of Value in which the values are regarded as essences and, as such, *a priori* in relation to all moral experiences which presuppose them.

With Kant material ethics were opposed to formal ethics. All ethics that asked "What is the highest good?" or "What is the final end?" were in essence material ethics and as such *a posteriori*. Depending on experience they were inductive in their development, empirical, concerned with consequences and legalities, hedonistic, heteronomous, making states of consciousness do duty for personality and placing the ultimate ground of value-judgments in egoistic impulses. In opposition to this type of ethics Kant set up his Ethics of Duty and Moral Obligation, entirely dominated by the two concepts of the formal and the *a priori*, the ethical *a priori* in the form of the Categorical Imperative being essentially and exclusively *formal*. Scheler's Ethics of Value proposes to break up this Kantian alliance

between the formal and the *a priori*, and whilst sympathizing with Kant in his criticism of the Ethics of *goods* and the Ethics of *ends*, sets up an Ethics of *Values* which depends on the *a priori* for its ethical quality just as much as Kant's does, but assigns the *a priori* to a realm of intuitable value—essences not abstracted from experience but presupposed by it.

On page 43 of his "Ethik" Scheler gives a definition of the *a priori*. As "*a priori*", he says, "we designate all those ideal unities of meaning and propositions which, if we disregard all-ways of positing both the subjects that think them together with their real constitution as natural beings and also the objects to which they might be applicable, reveal themselves through the *content* of an immediate intuition". This content of the intuition through which the *a priori* reveals itself Scheler calls a "phenomenon". Hence, as phenomena are present only when all positings, subjective and objective alike, are cancelled, we cannot intelligibly question whether they are appearances, illusions or realities. They are indifferent to all these distinctions. We intuit the essence, then, as phenomenon (or as revealing itself through it), and intuit it through an essential insight *sui generis*, through an intuition that may be called phenomenological. The essence gives itself either wholly or not at all, and gives itself immediately without picture or symbol. It is itself neither universal nor particular, and may be present equally in percept or concept: it is only the way in which it is related to the concrete which draws out the distinctions.¹ Again the phenomenological fact, the *a priori* essence, gives itself pure and free from all symbolic accretion. All non-phenomenological facts, on the other hand, are mediated through some symbol or other. We must therefore distinguish sharply between essences and symbols. "Thus a certain determinate red may have been so determined in the most manifold ways—as the colour designated by the word 'red', as the colour of *this* thing or of *this* determinate surface; as in a determinate order-scheme like that of the colour-cone, as the colour which I precisely see; as a colour of *this* periodicity and form, and so forth." (Scheler, "Ethik", p. 45.) The phenomenological experience is, however, that in which the totality of these indications and types of determination find their ultimate fulfilment. Further, the phenomenonal essence is given immediately and immanently. There is no transcendence of the immediate intuition. It is just what is intuited and nothing more. Here what is given, says Scheler, coincides precisely with what is meant: where the meant and the given meet the phenomenon appears.

¹ Scheler proceeds to point out that the truth of statements concerning essences is wholly independent of all that can be inductively observed or causally explained, and can neither be confirmed nor disproved thereby. It can be confirmed only by the endorsement of essences and their essential interconnexions, by agreement, that is, with what is valid *a priori*.

The *a priori* insight into *values*, and the *value-knowledge* which is based on it is, with Scheler, the insight of feeling, preference and ultimately of love and hate, covering also the ethical knowledge of value-connexions, in particular their higher and lower rank. This ethical knowledge displays itself in quite distinctive ways, in specific functions and acts wholly different from perception and thought, and constitutes the only valid approach to the world of Values. On these lines Scheler seeks to build up an "Emotional Ethics" on an *a priori* value basis, and is followed in this direction by Hartmann.

It would be idle to pretend that Scheler has succeeded in making quite clear the elusive meanings of the essential, the phenomenal, and the *a priori*. But he makes it clear that on his view the *a priori* is something self-given, not constructed through a formal activity of mind (as with Kant), that it is intuited through a special mode of intuition capable of experiencing unities or totalities of meaning as facts of an essential or phenomenal order, of experiencing them, not through thought or through symbol, but directly and as they are and nothing further; and that in the case of *a priori* values, the organ of intuition is pure feeling or *emotoin*.

Now if, forsaking the phenomenological standpoint, we turn to the vision of the Ideal as a spiritual experience, we find all these features characteristically present. The Ideal is self-given, transcending the subjectivities it pervades, and we intuit it as the philosopher does Truth, as a synoptically apprehended unity of meaning and value which in the most various ways and in adjustment to the most varied relativities of experience—though without itself forfeiting the least vestige of its ideality—remains our ultimate and transcendent standard. In cooperation with the subject's freedom of will and purpose, and through the subject and its aspiration as intermediaries, the Ideal brings into the experienter's life the direct, asymbolic assurance of an Absolute Source of value and obligation. There is no inner discrepancy between the phenomenology of Value as ideal and *a priori*, adopted and developed by Scheler and Hartmann, and the metaphysics of the Ideal as developed from the standpoint of spiritual experience. None the less, we would maintain that the latter standpoint has the superior advantage of presenting in a truer and more intelligible way the link of connexion between the ideal realm of the value-essence, on the one hand, and on the other the real world of the subject who intuits and experiences the same.

If we analyse the concrete experiences of life, searching into their foundations, we note that they contain a given element that touches our thought and feeling through diverse and ever shifting meanings and values. Something of the nature of

immanent reason seems to light up the given from within and make it in diverse ways intelligible, or it may raise baffling questions and problems that challenge our native faith in a rational Order. On the subjective side it is the enveloping fact of personality that here specially strikes us: it all has meaning and value *for me*, and the fact that it is *my* experience and that *I* have it is as fundamental for my experience as the conviction that there is something over against me that is not myself and has a meaning and value of a complex objective kind, immeasurably transcending what my thought and feeling at any moment are able to assimilate. Briefly, my experience and its world have a determinate structure—personal, rational, ideal—which remains steadfast through all changes. Science concentrating on the world of Nature, the datum of experience, has devoted two millenniums to the attempt to discover the permanent in Nature, and has evolved the causal Order in space and time. It has discovered a whole network of laws, but at the same time has elaborated a groundwork of assumptions and postulates upon which the scientific superstructure rests. It has, in other words, evolved an *a priori* at the same time as it has extended its *a posteriori* researches. But the *a priori* here is in the form of methodological assumptions, and is formal and subjective. Philosophical thought, passing beyond the limited interests of science, and approaching the Universe from a more central and inward viewpoint, is able to give to the *a priori* a more substantial and existential meaning. Nature and Mind betray the presence of powers that beautify the sensible, guide our thinking to clearer order and to deeper and more comprehensive unity, and inspire our conduct with motives and vistas that make life not only worth living, but a thing of even glorious significance. We may call it with Green, the Spiritual Principle, or with Plato, the Idea of the Good, or we may speak of it as the Presence of God, but however the matter may strike us, it is in all cases a recognition of an *a priori* factor in the Universe, a factor which we may sum up in one word: the Ideal. The Ideal is the best and simplest type of the *a priori*, and its prototype is Plato's Idea of the Good: for this meant much more to Plato than any ordinary "idea". The latter was characteristically and peculiarly the object of knowledge: the former transcends both the knowing subject and the known object: it is a Source of meanings and values, rather than itself a meaning and a value. All things that have meaning and value participate in it as a fountain-head, and through such participation win such meaning and value as they have. Now the whole phenomenological movement is inspired by this Platonic insight. The *essence* is a type of Platonic Idea, and it is impossible to recognise a realm of essences without eventually recognising the spirit of unity that makes of it an essential Order of truth and

morality, and gives it the functions of Plato's Supreme Idea. This is at any rate a central conviction of Idealism.

Now the conflict as to the meaning of the *a priori* amongst those who recognise its necessity and its reality centres round its relation to subjectivity. Hartmann despite, or perhaps on account of his Platonism, shows a realistic strain, and shares the modern realist's antipathy to all that is subjective. I believe that in the end this attitude is prejudicial to the efficiency of his insight, effectively preventing him from sharing certain fundamental intuitions, the grasping of which would have substantially modified his metaphysical outlook. But we must not exaggerate. Hartmann connects subjectivism mainly with its Berkeleian and Kantian forms. Idealism, he holds, became subjectivism, and was correspondingly degraded when ideality became the mode of Being of whatever subsists only in and for the presentations of a subject (I, 222). Clearly, Hartmann's self-existent ideal sphere of values could not be limited to ideality of this kind. Again, Hartmann is in revolt against the subjectivism of Kant which made the *a priori* throughout a function of the subject (I, 162). The categories, for Kant, have a subjective origin, and the *a priori* therefore a subjective construction. Abiding by these restricted conceptions of the subjective, Hartmann maintains that the subject and his acts are not subjective (I, 264). He accepts the subject as the essential mediator between Values and reality—the Ideal Values being neither subjective nor objective, but on the other side of both (I, 265)—and accepts as a stage still higher than subjectivity the stage of personality. He tells us (I, 324) that subjectivity and personality are fundamentally different, the subject having an ontological and existential status only, whereas the person has an axiological status. In the subject the ethical carriership of values is lacking. The relationship is so ordered that whereas subjectivity can exist independently without the superstructure of personality, personality cannot exist without the substructure of subjectivity. Subjectivity, in fact, is associated exclusively with the existential stratum of *consciousness*, and with the I only as the opposite of Not-I. "I and thou" remain "a purely ethical contrast", personal, but not subjective (I, 324). With this respect for personality it is possible for Hartmann to make an original and most effective defence of moral freedom, in close conjunction with his defence of the self-existence of the Ideal Values. It would therefore seem as though Hartmann's attack on subjectivism had lost its sting, and that with some concession in the matter of names he might at any rate find a niche in his scheme for what Husserl has termed transcendental subjectivity. But the real discrepancy between Hartmann's Platonic Idealism and Idealism of a transcendental subjective type concerns the relation of the self-existent values

to the free personality. The personal subject, it is true, mediates between the Values and reality, and in this way apriorism enters into the world of appearances (I, 87), but we are left wondering how precisely this mediation, this participation of the person in the self-existent Values is to be understood. There is no analysis in Hartmann's work to suggest how this relationship can be rendered intelligible. He tells us flatly that "we know nothing about the nature of God" (I, 337), and so bars the way to any identification of the ideal values with deity. He is persuaded that a personal God, if conceivable at all, would be this only as "the lowest order of person" (I, 342). He has not considered the possibility of a "super-personal" Being, capable in virtue of his transcending the limits of personalism of including all persons within his divine orbit, of pervading the consciousness of every living individuality with such intimations of his presence as the stage of development permitted, and in particular of ennobling the consciousness of rational persons with the presence and power of the Ideal. This possibility is *bene fundatum*. We have but to consult our own experience, and indeed the smallest vestige of it will suffice. But let us first get rid of the prejudice that Ideals, like abstract ideas, are mere derivatives from experience, and let us realise that any attempt to derive them *a posteriori* necessarily presupposes that which was to have been derived—for how can Reason be active without presupposing its own ideals of Truth, Beauty and Goodness? With these provisos our experience will be seen to be so inextricably interwoven with the presence of ideal standards that those who are prepared to think of the Perfect Being as manifesting himself in and through the Ideals that are immanent in all life in varying manner and degree, and perpetually claim its allegiance, will detect the presence of these constraining standards in their own experience, and may be drawn to put it forward as a metaphysical speculation that the Ideal really exists in super-personal form, and that its mode of existence permits of this intimate pervasion of the interests and activities of all living beings. A line erased, a dot here rather than there, a transfer to a footnote, a substituted synonym are the writer's reactions to the urgency of æsthetic Ideals. It is a spirit of expressiveness and beauty that motivates these procedures, and thereby weaves itself into the less imperfect result. So, too, our behaviour is constantly swerving to the pressure of some good impulse, as when in our plans and movements we consider how to better the present in some respect, or seek to make our thinking in some small way and degree more faithful to itself and to the facts. On these lines the ethical *a priori* would answer to all the requirements of Platonic apriority as conceived by Hartmann, but its transcendence would be more intimately knit up with personal experience than in his own presentation

of it. And what Ideals are to our aspiration would be values to our feelings and meanings to our thought.

In a further article—or articles—I propose to consider Hartmann's conception of the nature and limits of teleology, and his more detailed treatment of the Moral Values and Moral Freedom.

PSYCHOLOGY AND RADIO.

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Moscow.

I.

SEVERAL examples of applying radio to psychological investigation are presented in this article.

I am sure that radio contains a great many possibilities not yet tried by experimental psychologists. If our first attempts in this direction attract attention and stimulate new, more perfect efforts of the kind, we shall consider ourselves satisfied.

PSYCHOLOGICAL CONTROL OVER PERSONS WHO ARE OCCUPIED BY THE MORNING GYMNASTICS BY RADIO.

Since the beginning of the year 1929 occupations of morning gymnastics by radio were organized by the Moscow radio administration. From the very first measures were undertaken to adapt the exercises to the strength of the participators. Thus it was strictly recommended not to begin exercises by radio without first consulting a doctor. Then measures were taken for a personal control of the influence of morning gymnastics upon separate individuals. Attempts were made to teach the persons so occupied to register the beating of the pulse. After indispensable preliminary explanations of how and where to feel one's pulse, exact records of time were given by radio, during which the beating of the pulse had to be counted. It was proposed to send the results of these observations (before and after the gymnastics) to the Moscow Radio Centre. The materials thus accumulated showed graphically (1) that the persons occupied by the morning gymnastics treat the exercises so seriously that they are ready to make systematical observations of a controlling type, and (2) that not everybody has, after the athletic exercises, equally favourable changes of the pulse.

[Professor Nechaev has been for many years a careful investigator in the spheres of Experimental Psychology and Pedagogy. He has been a frequent contributor to the *Archiv für die Gesamte Psychologie* in Germany. He visited Sydney in the year 1914 to attend the meeting of the British Association for the Advancement of Science. He brought with him some admirable psychological apparatus constructed in his own laboratory. This apparatus he presented to the Department of Psychology at the University of Sydney, and it is still in use. Professor Nechaev requested me to keep him informed about the progress of the Department of Psychology here, which was then in the early stages of its establishment. Unfortunately, owing to circumstances, I lost touch with Professor Nechaev and was unable to communicate with him. He has now sent forward this important and interesting article, together with his present address, and I shall have pleasure in informing him of what has happened to Psychology in Australia since 1914.—ED.]

The instructor for the morning gymnastics (W. Nabokow) immediately availed himself of these facts to introduce necessary improvements into the physical exercises of separate persons. The correspondence with the participators in the morning gymnastics became more active. It was recommended to some of them to substitute walking for skipping, others were bidden to shorten the time of the exercise, others again were advised to interrupt the gymnastics for some time and immediately consult a doctor.

The practical results of this first attempt at personal control of gymnastics by radio induced us to think about further development of our investigations.

This problem arose: Could there not be organized an investigation of the nervous system of people who are occupied with physical exercises?

At first that problem seemed insoluble, for every study of a person's nervous system usually needs an immediate contact with the one who is being examined. How was one to examine a nervous system at a distance, not even seeing who was being examined?

In this difficulty psychological methods came to our aid. In June of the year 1929 I was requested to organize a psychological control over the persons who are occupied with gymnastics by radio. For this I decided to avail myself of the method which was formerly tried by me on many thousands of persons and found very suitable for ascertaining the influence of different physical exercises on mental condition.¹

The method of research consists in the following:

(1) One says to those who are being examined: "Directly I shall dictate several numbers. You must listen silently and try to remember them. When I say 'write', you will write them down in the order in which you have remembered them. I am beginning directly." After that the experimenter waits five seconds; then he dictates twelve two-digit numbers (*e.g.*, 59, 62, 41, 96, 87, 94, 23, *et cetera*), waiting five seconds after each number. After dictating this series there is a pause of five seconds, and then comes the signal "write".

The total of correctly reproduced numbers is taken as the coefficient of *memory*, and the number of correctly written numbers constituting one unbroken group in the series as the coefficient of *attention*. Thus, if the person has remembered the first, second, tenth, eleventh and twelfth numbers of the series, the coefficient of his memory equals 5 and the coefficient of of attention equals 3.

(2) The persons who are being examined are told: "Directly I shall call out a number. As soon as you hear it you will

¹ A. Netschajeff, Zur Frage über Ermüdungsmessungen, *Archiv für die Gesamte Psychologie*, LXIII, 1928: *Psychical Fatigue*, under the editorship of A. Netschajeff, Moscow, 1929.

immediately write it down and go on writing the following numbers as quickly as possible, *e.g.*, if I say 10, you must immediately put down 10 and go on writing 11, 12, 13, *et cetera*, until I say 'enough'. When I say 'enough' you must lift your pencil up at once, even if the number is not fully written. You must write in a line, as you usually write, and, of course, in digits, and not in letters; commas are not wanted. Well, get ready. Directly I shall call out the number you have to begin with." Then the experimenter calls out a number from the third ten. Thirty seconds are given for the writing.

When counting up the results attention is paid to the number of the two-digit figures written down.

Our preliminary researches made repeatedly with many thousands of persons of different age and different degree of intellectual development showed that there is a certain correspondence between the general development of intellect and the results of the above-described experiments.

TABLE I.
Normal Relation between Memory, Attention and the Swiftmess of Writing.

Degrees of Intellectual Development.	Psychical Peculiarities of Persons Placed on One Level of Intellectual Development.	Coefficients.		
		Of Memory.	Of Attention.	Swiftmess of Writing.
1	Development of speech within the limits of designating the surrounding objects and usual actions	0-1.9	0-1.4	0-9
2	Capacity for mastering elementary literacy	2-3.2	1.5-1.7	10-14
3	Mastering of coherent knowledge given in a concrete form	3.3-4.6	1.8-2.4	15-21
4	Mastering of congruous knowledge of a more abstract kind	4.7-5.1	2.5-2.7	22-26
5	Mastering of the methods of scientific mentality	5.2-5.7	2.8-3.0	27-30
6	The same in more complicated forms..	5.8 and more	3.1 and more	31 and more

This relation between sensory and motor processes (in this case between memory and attention on one side and the swiftmess of writing on the other) is seriously distorted under some conditions. In cases of fatigue the process of memory and attention usually decreases and the quickness of writing increases. But sometimes (especially after muscular labour) there is a converse relation. In some rare cases we have a decrease of sensory (memory and attention) and motor processes at the same time.

For a mathematical expression of all these variations it is convenient to avail oneself of the following formula, which gives the coefficient of harmony between the motor and the sensory process.

$$\text{Harmony} = \frac{\frac{\text{Degree of memory} + \text{degree of attention}}{2} \times 100}{\text{Degree of swiftness in writing}}$$

Example : The person who was being examined remembered five numbers (fourth degree of memory), three of them formed an uninterrupted group of the series (fifth degree of attention) and wrote, during thirty seconds, thirty-four two-digit numbers (sixth degree of quickness).

So we have :

$$\text{Harmony} = \frac{\frac{4+5}{2} \times 100}{6} = 75$$

It is evident that in the cases where the degree of the sensory process is lower than the degree of the motor process, the coefficient of harmony is less than 100. In other cases it is more than 100. The number 100 is the symbol of harmonic relation between the sensory and the motor processes.

The described method is found very convenient for the setting of psychological researches by radio because :

- (1) It is based exclusively on hearing signals.
- (2) It is short.
- (3) It supposes only the presence of simple literacy and does not need any other materials than a pencil and a sheet of paper.

At the present moment I have a large amount of material (about 10,000 documents) which was obtained during two years of systematical application of this method as a means of control over persons occupied with the morning gymnastics by radio.

Our experiments are made regularly twice a month, before and after the physical exercises, while the persons who are being examined immediately send us their notes with the results of the experiments, mentioning their sex, age, profession, address, education, and also notes about the quality of sleep during the previous night, lodging condition, nourishment, the time of their last rest, as also about smoking and alcoholism.

When appraising the general results of our experiments of psycho-physiological control over gymnastics by radio, we had to consider firstly the question how far the persons occupied with gymnastics have in reality mastered the problem set before them. Do they properly understand our instructions? Can they contrive to create favourable conditions at home for conducting the needed self inspection? Are they not disturbed during that inspection? And, finally, may there not be some persons sending us this information who take a frivolous view of these experiments?

Undoubtedly, not all the participators in these experiments contrive to carry them through as they ought to be. Some of them indicate disturbing circumstances (there was a noise, someone entered with a question during the experiment, someone arrived unexpectedly). From other letters it was quite evident that some of the formal requirements of our instruction were not observed, *e.g.*, the omission of one of the experiments. Such records were not taken into consideration, and their total number, on the average, was equal to 6% only.

Can it be said that the remaining data are of scientific value ?

This question interested us especially at the setting of our first experiments (June 14, 1929), as it was connected with another question of principle, namely, can radio, in general, be used for the setting of psychological experiments ?

An answer to this question could be obtained from the analysis of the data gathered from our experiments. There is such a regularity of facts as cannot be artificially counterfeited, and which can only be ascribed to an attentive attitude on the part of the participators in the experiments to the problem of self examination set before them.

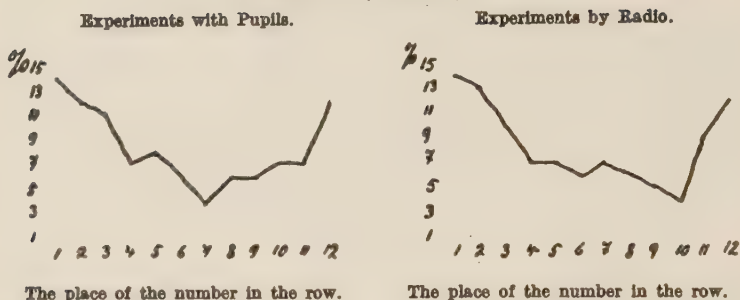
We requested the persons who were being examined to listen silently and then produce from memory a series of twelve two-digit numbers, which are pronounced every five seconds, one after the other. It was necessary to listen to these numbers during one minute, and to remember them during the second one. A minute is rather a long time for such an operation as the remembering of numbers. During that period the attention of a man does not usually stop at the same point. His strain wavers, and because of this the numbers occupying different places in the row are not equally well remembered. So it is noticed, for example, that the middle numbers are remembered worse than those at the ends, and moreover, in a state of cheerfulness, the first numbers are better remembered and in a state of fatigue, the very last.

As an example, I shall show the results of my former experiments, got from 379 pupils (ranging in age from 11 to 17) before the commencement of their occupations. Of the total of correctly written numbers 14% were the first number, 12% second numbers, 11% third numbers, and so on. (See Table II and Diagram I.)

TABLE II.
Percentage Distribution of Correctly Reproduced Numbers.

The Place of the Number in the Series.		1	2	3	4	5	6	7	8	9	10	11	12
Percentage of the correctly reproduced numbers.	Experiments with pupils	14	12	11	7	8	6	4	6	6	7	7	12
	Experiments by radio.	14	13	10	7	7	6	7	6	5	4	9	12

DIAGRAM I. (TABLE II.)



Comparing the curves shown in Diagram I we observe their great similarity. The difference between them is only that the largest decrease of attention in school experiments is noticed at the seventh number and in experiments by radio at the tenth. That greater persistence of attention by the persons examined by radio must be explained by their more mature age (on the average). Such differences, depending upon the mean age of the examined groups, are perpetually remarked.

So, already the first experiments by radio gave us a regular picture of the instability of attention during one minute of remembering the numbers. The 189 persons, therefore, who sent us their observations from Moscow, Kharkow, Smolensk, Archangel, Ivanovo-Vosnesensk and many other places, could certainly not have conspired among themselves, so that we were able to get, from the general calculation of data sent to us, quite a regular picture, completely corresponding with our former observations, which were made under our immediate control! Such a conformity could only be obtained from a serious and really attentive attitude to the problem by our unseen participators in the morning gymnastics.

With further accumulation of data we found the possibility of new proofs of its scientific suitability.

From our results we chose 1,300 notes, where all the data which interested us were fully shown, together with an indication that the experiments took place under completely favourable conditions. For each separate case we reckoned out the percentage of the amount of the changes of the pulse rate and the sensori-motor harmony after the gymnastics. We wanted to ascertain the regularity of these changes.

The answer to this question is given in Table III and Diagram II.

TABLE III.

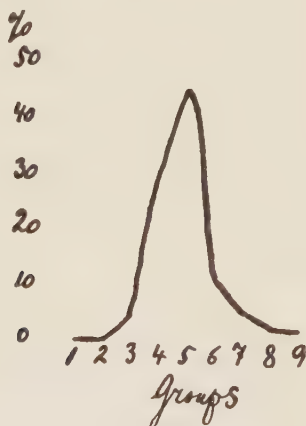
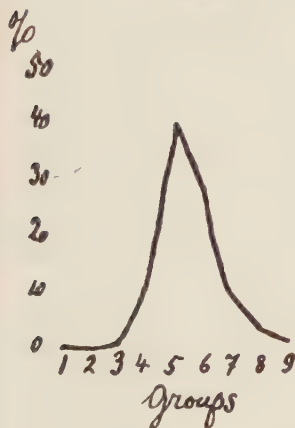
Distribution of the Participators According to the Degree of the Changes of the Pulse-Rate and the Sensori-Motor Harmony after the Morning Gymnastics by Radio.

Groups	1	2	3	4	5	6	7	8	9
Changes in the pulse-rate ..	from - 49% to - 39%	- 38%	- 27%	- 16%	- 5%	+ 6%	+ 17%	+ 28	+ 39%
Number of observations ..	1	1	13	154	520	365	128	48	24
Percentages ..	0.1	0.1	1	12	41	29	10	4	2
Changes in sensori-motor harmony	from 203% to 158%	- 157%	- 112	- 67%	- 22%	+ 23%	+ 68%	+ 113%	+ 158%
Number of observations ..	0	1	47	389	569	151	66	28	28
Percentages ..	0	0.1	4	30	45	12	5	2	2

DIAGRAM II. (TABLE III.)

Pulse.

Sensori-Motor Harmony.



In this way we have a mathematical proof that our psychological observations by radio allow us to state a fixed regularity in the events which we are studying. What practical conclusions might be drawn from the manipulation of the data at our disposal?

The first question one naturally wants to put is: Is there an immediate favourable influence of the morning gymnastics on the nervous system of the persons who are being examined?

Our results show that in approximately 80% of cases an immediate rise of the sensori-motor harmony is noticed after the gymnastics: the people become calmer, steadier, and the

process of memory and attention approaches its normal state; the inertness of movements and the superfluous excitement of the motor sphere pass. In 20% of the persons who were examined by us no immediate favourable influence of the gymnastics on their organism was remarked. On the contrary, sometimes a serious depression of sensori-motor harmony was observed, which corresponded generally with an unfavourable change in the rate of the pulse. To these persons we recommended the setting aside of some movements or the shortening of them in accordance with the degree and character of the unfavourable symptoms. The result was that in the majority these unfavourable symptoms ceased, so that at the end we had only 3% of all the persons examined (who were submitted to psycho-physiological experiments) in whom an immediate, really unfavourable, influence from the morning gymnastics could be noted. It is obviously necessary to advise these persons to abstain from physical exercises and to consult a doctor.

It is a very interesting fact that the morning gymnastics have not only an immediate, but also a protracted, influence on a person's nervous system. Persons who systematically occupy themselves with the morning gymnastics by radio become every month more and more steady. Their nervous state becomes better and better from the early morning. Likewise the immediate influence of gymnastics tells on them more and more. As an illustration, we shall present the data taken from eighty documents sent to us by a group of persons who very accurately occupied themselves with the radio gymnastics and who participated in our experiments during four months.

In the first month of our experiments, *before* the gymnastics, there were 41% of our subjects in a condition of sensori-motor equilibrium; the second month, 54%; the third month, 57%; and in the fourth month, 69%. Immediately *after* the gymnastics, persons with a normal sensori-motor harmony were: in the first month, 44%; in the second month, 49%; in the third month, 54%; and in the fourth month, 55%.

During our experiments a different influence of gymnastics on persons of different age came to light. An immediate improvement of the sensori-motor harmony was remarked in persons of middle age.

At 30 years.....	in 57%	of cases
„ 40 „	„ 41%	„
„ 50 „	„ 37%	„

On the contrary, negative results were noticed immediately after the gymnastics by persons at the age:

At 20 years.....in	4.2%	of cases
From 20 to 30 years.....,,	4.8%	,,
,, 30 ,, 40 ,,	5.6%	,,
,, 40 ,, 50 ,,	10.5%	,,
Above 50 years.....,,	14.2%	,,

The data is graphically shown in Diagrams IV and V.

SLEEP AND PSYCHICAL FATIGUE.

As an illustration of the possibility of using radio for the aims of psycho-hygienic researches I will present the following facts.

Out of the enormous material which accumulated during a year we succeeded in choosing 2,408 documents, which answered to the needed information completely and for which the experiments were accurately carried out.

According to age, sex, occupation and location our correspondents are distributed as shown in Table IV.

TABLE IV.
The Distribution of the Number of the Examined Persons.

				Age.				
				Under 20 years.	20-30 years.	30-40 years.	40-50 years.	Above 50 years.
From Moscow :								
Men								
	Manual labour			5	85	46	18	7
	Mental labour			113	191	218	109	19
Women								
	Manual labour			1	28	21	16	0
	Mental labour			74	99	85	69	22
From other places :								
Men								
	Manual labour			22	26	37	1	1
	Mental labour			206	264	223	59	24
Women								
	Manual labour			7	15	31	8	0
	Mental labour			86	113	88	20	6
Totals				514	771	749	295	79

The first question, which we wanted to make clear with the help of our material, was the question about the amount of night-rest usually requisite for persons of different ages, different kinds of occupation and different dwelling-places. Statistics upon these questions, as is well known, are quite insufficient, whereas the materials gathered during our experiments, including a large number of observations, have also the advantage of having been gathered at the same time in different parts of our

country by the same person, by the same method, and also parallel with a series of psycho-physical observations. It was possible to prepare such a method of research only with the help of radio, and from that point of view the work here presented must be considered as an original endeavour to profit by radio for clearing up one of the most important problems of hygiene.

Tables IV to VIII give a summary of all our materials concerning the amount of sleep among persons who differed in sex, age, kind of occupation and dwelling-place.

TABLE V.
Duration of Sleep in Men (from Moscow).
(The figures indicate the number of observations.)

Length of Sleep.	Age.									
	Under 20 years.		20-30 years.		30-40 years.		40-50 years.		Above 50 years.	
	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.
Less than 5½ hours	0	7	3	18	5	18	1	12	1	10
5½-6½ hours ..	0	8	9	33	13	53	4	32	5	6
6½-7½ hours ..	3	39	9	68	21	75	5	35	1	1
7½-8½ hours ..	1	22	10	51	4	54	7	24	0	2
More than 8½ hours	1	37	4	21	3	18	1	6	0	0

TABLE VI.
Duration of Sleep in Men (from Other Places).

Length of Sleep.	Age.									
	Under 20 years.		20-30 years.		30-40 years.		40-50 years.		Above 50 years.	
	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.
Less than 5½ hours	1	8	0	16	4	16	1	13	1	3
5½-6½ hours ..	1	12	4	49	10	51	0	10	0	9
6½-7½ hours ..	8	47	10	92	7	78	0	16	0	7
7½-8½ hours ..	7	64	9	81	10	46	0	8	0	3
More than 8½ hours ..	5	75	3	26	6	32	0	12	0	2

TABLE VII.
Duration of Sleep in Women (from Moscow).

Length of Sleep.	Age.									
	Under 20 years.		20-30 years.		30-40 years.		40-50 years.		Above 50 years.	
	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.
Less than 5½ hours	0	0	1	11	6	4	4	9	0	3
5½-6½ hours ..	0	6	2	20	9	21	6	16	0	6
6½-7½ hours ..	1	13	13	35	5	38	5	29	0	7
7½-8½ hours ..	0	23	10	30	0	15	1	12	0	1
More than 8½ hours ..	0	32	2	3	1	7	0	3	0	5

TABLE VIII.
Duration of Sleep in Women (from Other Places).

Length of Sleep.	Age.									
	Under 20 years.		20-30 years.		30-40 years.		40-50 years.		Above 50 years.	
	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.
Less than 5½ hours	1	4	1	8	1	7	0	1	0	1
5½-6½ hours ..	0	14	1	17	6	19	0	2	0	2
6½-7½ hours ..	0	8	4	42	6	29	2	2	0	1
7½-8½ hours ..	1	25	5	31	11	20	1	9	0	1
More than 8½ hours	5	35	4	15	7	13	0	6	0	1

This material can be reviewed in different ways. First of all we can reckon up the common totals, having defined the variations in the amount of sleep in respect only to age and sex. (See Tables IX to XI.)

TABLE IX.
The Length of Sleep in Men of Different Age.
 (Number of Observations.)

Age.	Sleep.					
	Less than 5½ hours.	5½-6½ hours.	6½-7½ hours.	7½-8½ hours.	Above 8½ hours.	Total.
Under 20 years	16 (5%)	21 (6%)	97 (28%)	94 (27%)	118 (34%)	346
20-30 years ..	37 (7%)	95 (18%)	179 (35%)	151 (29%)	54 (11%)	516
30-40 years ..	43 (8%)	127 (24%)	181 (35%)	114 (22%)	59 (11%)	524
40-50 years ..	27 (14%)	46 (25%)	56 (30%)	39 (21%)	19 (10%)	187
Above 50 years	15 (29%)	20 (39%)	9 (18%)	5 (10%)	2 (4%)	51
Totals ..	138 (9%)	309 (19%)	522 (32%)	403 (25%)	252 (15%)	1,624

TABLE X.
The Length of Sleep in Women of Different Age.

Age.	Sleep.					
	Less than 5½ hours.	5½-6½ hours.	6½-7½ hours.	7½-8½ hours.	Above 8½ hours.	Total.
Under 20 years	5 (3%)	20 (12%)	22 (13%)	22 (13%)	72 (43%)	168
20-30 years ..	21 (8%)	40 (16%)	94 (37%)	94 (37%)	24 (9%)	255
30-40 years ..	18 (8%)	55 (25%)	78 (35%)	78 (35%)	28 (12%)	255
40-50 years ..	14 (13%)	24 (22%)	38 (35%)	38 (35%)	9 (8%)	108
Above 50 years	4 (14%)	8 (29%)	8 (29%)	8 (29%)	6 (21%)	28
Totals ..	62 (8%)	147 (19%)	240 (31%)	240 (31%)	139 (17%)	784

TABLE XI.
Length of Sleep in Men and Women of Different Age.
 (Total of Tables VI and VII.)

Age.	Sleep.					
	Less than 5½ hours.	5½-6½ hours.	6½-7½ hours.	7½-8½ hours.	Above 8½ hours.	Total.
Under 20 years	21 (4%)	41 (8%)	119 (23%)	143 (28%)	190 (37%)	514
20-30 years ..	58 (7%)	135 (17.5%)	273 (35.5%)	227 (29.5%)	78 (10%)	771
30-40 years ..	61 (8%)	182 (24%)	259 (35%)	160 (21%)	87 (12%)	749
40-50 years ..	41 (14%)	70 (24%)	94 (32%)	62 (21%)	23 (9%)	295
Above 50 years	19 (24%)	28 (35.5%)	17 (21.5%)	7 (9%)	8 (10%)	79
Totals ..	200 (8%)	456 (19%)	762 (32%)	599 (25%)	391 (16%)	2,408

A more significant aspect could be given to these tables (IX to XI) by reviewing them in the following way. (See Tables XII and XIII.)

TABLE XII.
Duration of Sleep in Persons of Different Age and Sex.

Age.	Above 8½ hours.	Not less than 7½-8½ hours.	Not less than 6½-7½ hours.	Not less than 5½-6½ hours.	Not less than 3-5½ hours.
	%	%	%	%	%
Under 20 years					
Men	34	61.0	89.0	95.0	100
Women	43	72.0	85.0	97.0	100
Men and women	37	65.0	88.0	96.0	100
20-30 years—					
Men	11	40.0	75.0	93.0	100
Women	9	39.0	76.0	92.0	100
Men and women	10	39.5	75.0	92.5	100
30-40 years—					
Men	11	33.0	68.0	92.0	100
Women	12	32.0	67.0	92.0	100
Men and women	12	33.0	68.0	92.0	100
40-50 years—					
Men	10	31.0	61.0	86.0	100
Women	8	30.0	65.0	87.0	100
Men and women	9	30.0	62.0	86.0	100
Above 50 years—					
Men	4	14.0	32.0	71.0	100
Women	21	28.0	57.0	86.0	100
Men and women	10	19.0	40.5	76.0	100

TABLE XIII.

Duration of Sleep in Persons of Different Sex, Irrespective of Age, Kind of Occupation and Place of Living.

	Sleep.				
	Not less than 8½ hours.	Not less than 7½-8½ hours.	Not less than 6½-7½ hours.	Not less than 5½-6½ hours.	Not less than 3-5½ hours.
	%	%	%	%	%
Men	15	40	72	91	100
Women	17	42	73	92	100
Men and women	16	41	73	92	100

The relations given in Tables XII and XIII are graphically shown in Diagrams III and IV. Thus we see that if we take a large number of observations and bring them to a proper percentage we obtain a wonderful conformity between the length of sleep in persons of different sex. (See Diagram IV.)

DIAGRAM III. (TABLE XII.)

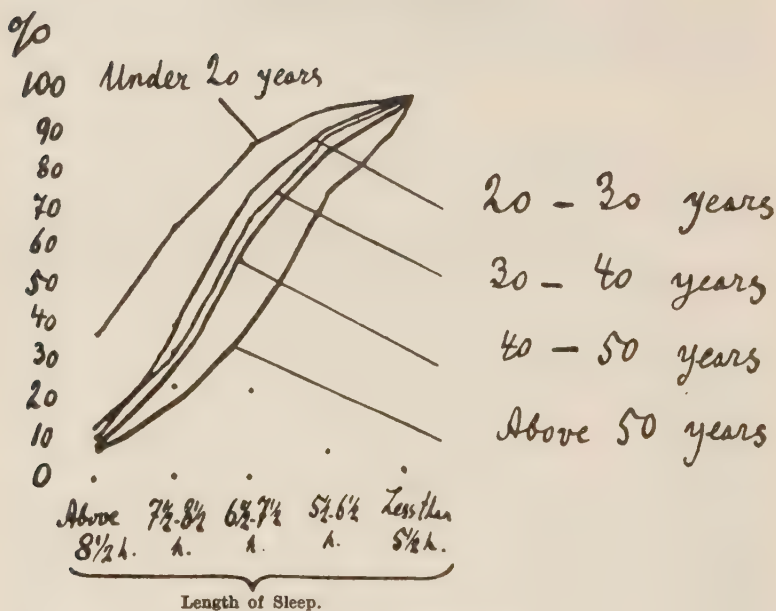
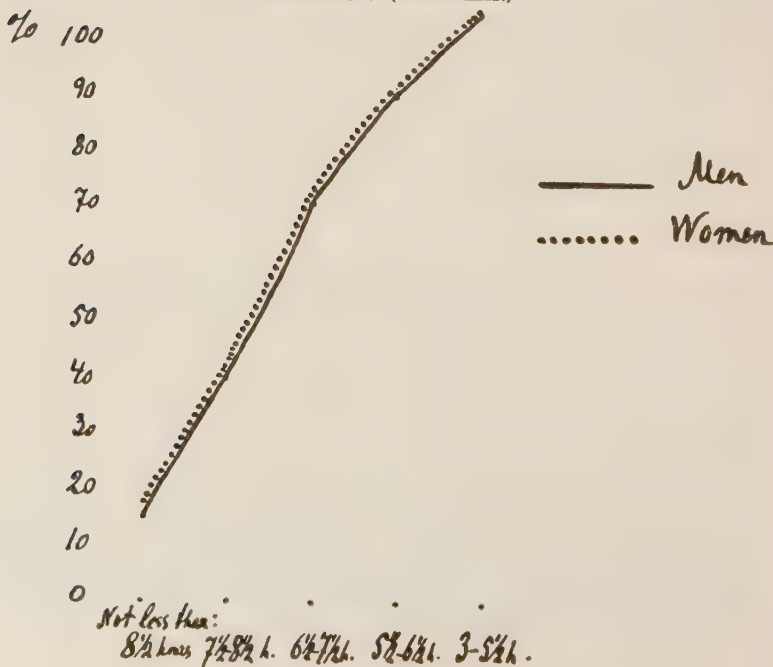


DIAGRAM IV. (TABLE XIII.)



The inclination for prolonged sleep diminishes with years (Diagram III), and an especially remarkable decrease of the length of sleep is observed after 20 and after 50 years of age. In men, after 40 years of age the diminishing of the length of sleep is more noticeable than in women. (See Diagram III.)

Table XIV shows variations of the length of sleep in accordance not only with age and sex, but also with dwelling-place.

TABLE XIV.
Duration of Sleep in Persons of Different Age, Sex and Place of Living (Moscow and Other Places).

Sleep.	Age.									
	Under 20 years.		20-30 years.		30-40 years.		40-50 years.		Above 50 years.	
	Mos-cow.	Other Places.	Mos-cow.	Other Places.	Mos-cow.	Other Places.	Mos-cow.	Other Places.	Mos-cow.	Other Places.
	%	%	%	%	%	%	%	%	%	%
More than 8½ hours—										
Men	32	35	11	10	8	14	6	20	0	8
Women	43	43	4	15	7	17	3	26	23	17
Not less than 7½-8½ hours—										
Men	51	67	38	41	30	35	30	33	8	20
Women	73	71	35	43	21	43	19	70	28	34
Not less than 6½-7½ hours—										
Men	87	91	72	76	66	68	62	60	16	48
Women	80	80	73	79	62	72	59	87	60	51
Not less than 5½-6½ hours—										
Men	94	95	91	94	91	92	90	77	58	84
Women	92	95	90	93	90	93	85	96	87	83
Not less than 3-5½ hours—										
Men	100	100	100	100	100	100	100	100	100	100
Women	100	100	100	100	100	100	100	100	100	100

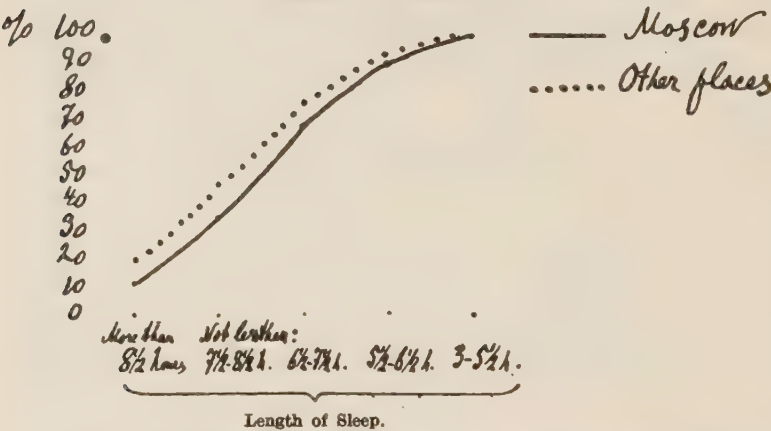
Having generalized the data of Table XIV, we obtained Table XV, which shows the changes of the length of sleep in persons living in Moscow and other places (without any distinction as to sex, age and occupation).

TABLE XV.
Length of Sleep in Persons Living in Moscow and in Other Places.

	Sleep.				
	More than 8½ hours.	Not less than 7½-8½ hours.	Not less than 6½-7½ hours.	Not less than 5½-6½ hours.	Not less than 3-5 hours.
	%	%	%	%	%
In Moscow	12	35	69	90	100
In other places	20	47	76	93	100

Relations shown in Table XV can be graphically seen in Diagram V.

DIAGRAM V. (TABLE XV.)



Our data shows that persons living in Moscow sleep, on the average, a little less than people living in other places.¹ That difference is more noticeable in women than in men, and especially after the age of 40.

If we compare the amount of sleep in persons doing manual and mental labour respectively, we get Table XVI.

TABLE XVI.
Length of Sleep in Persons of Manual and Mental Labour.

Place.	Type of Work.	Length of Sleep.				
		More than 8 1/2 Hours.	Not less than 7 1/2-8 1/4 Hours.	Not less than 6 1/2-7 1/4 Hours.	Not less than 5 1/2-6 1/4 Hours.	Not less than 3-5 Hours.
Moscow	Manual	% 7	% 26	% 61	% 88	% 100
	Mental	13	37	71	91	100
Other Places ..	Manual	21	52	78	93	100
	Mental	20	46	76	93	100
Totals	Manual	14	38	69	91	100
	Mental	16	41	73	92	100

¹ Besides Moscow we received data from Kharkov, Nijni-Novgorod, Kiev, Vladimir, Orel, Voronej, Lougansk, Dneprovsk, Kostroma, Tambov, Riazan, Ty.-Voonesensk, Koslov, Nahichevan, Rostov on Don, Rostov gr. of Taroslavl, Iver, Taroslavl, Viasma, Arsamas, Shua, Vologda, Poltava, Perm, Kimry, Dzerjinsk, Pereslavl, Dmitrov, Pavlov, Kherson, Kalouga, Viatka, Tula, Mojaisk, Orchovo-Zonevo, Serpouhov, Kineshma, Bologoe and a number of other small places.

DIAGRAM VI. (TABLE XVI.)

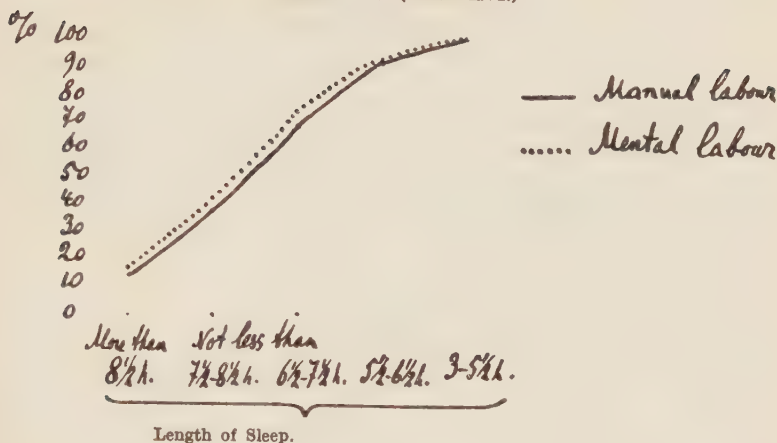
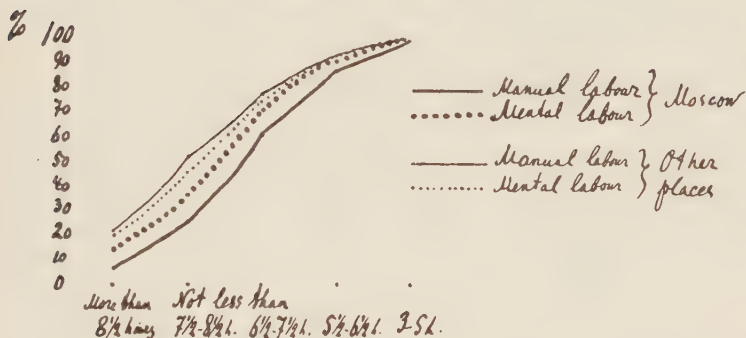


DIAGRAM VII. (TABLE XVI.)



Diagrams VI and VII are a graphic expression of Table XVI. We see, if the general total of our observations is taken, that the length of sleep in persons mostly occupied by mental labour is somewhat greater than by persons doing manual labour (Diagram VI). That is more clearly seen by comparing the groups which have their residence in Moscow. The data received from other places give a different picture: the representatives of manual labour from the province, according to our observations, sleep more than their Moscow comrades, and more than the representatives of mental labour (Diagram VII).

The assembled data upon the question of the length of sleep have a special importance, not only because they were gathered simultaneously in different towns by the same method, but also because they can be compared with a series of psycho-

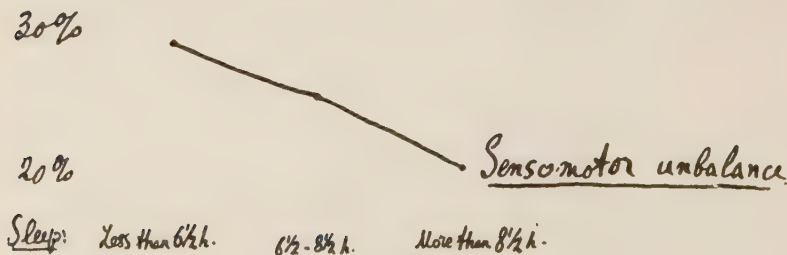
physical data obtained by us from the experiments by radio with all the persons who were examined.

If we divide all the examined persons into three large groups, according to the duration of sleep, and if we consider how often in each of these groups the coefficient of sensori-motor harmony is found to be below 80, we shall have an absolutely definite picture of the correspondence between the decrease of the length of sleep and the increase of the signs of sensori-motor unbalance. (See Table XVII, Diagram VIII.)

TABLE XVII.
Length of Sleep and Sensori-Motor Unbalance.

Length of Sleep.	Number of Observations.	Coefficient of the Sensori-Motor Harmony Below 80.
More than 8½ hours	391	21.0%
6½ to 8½ hours	1,361	26.0%
Less than 6½ hours	656	29.5%

DIAGRAM VIII. (TABLE XVII.)



It would be interesting to verify the results of our mass of observations, indicating an indisputable connection between the length of sleep and the state of sensori-motor harmony, with observations of an individual type. For this purpose I availed myself of 57 documents sent to us by six persons who were systematically observed in our experiments by radio, and who at the same time gave a marked variation in the length of their sleep.

This is what we obtained by comparing the average data of these documents (Table XVIII).

TABLE XVIII.

Duration of Sleep, Rate of Pulse and Sensori-Motor Harmony.

Subject's Number.	Number of Observations.	Sex.	Age.	Rate of Pulse.			Sensori-Motor Harmony.		
				Length of Sleep.			Length of Sleep.		
				5½-6½ Hours.	6½-7½ Hours.	7½-8½ Hours.	5½-6½ Hours.	6½-7½ Hours.	7½-8½ Hours.
344	9	M.	27	76	74	70	100	117	120
1,701	15	M.	42	69	69	69	90	92	92
1,542	11	M.	30	70	61	74	90	100	60
370	5	M.	28	78	74	62	100	83	125
2,358	6	F.	23	81	81	84	63	70	60
2,901	11	F.	70	63	65	58	150	140	117
Average = ..				73	70.7	69	99	100.3	112

From these examples we see that with increase in the duration of sleep a tendency to reduction in the pulse rate and increase in the sensori-motor harmony is noticed.

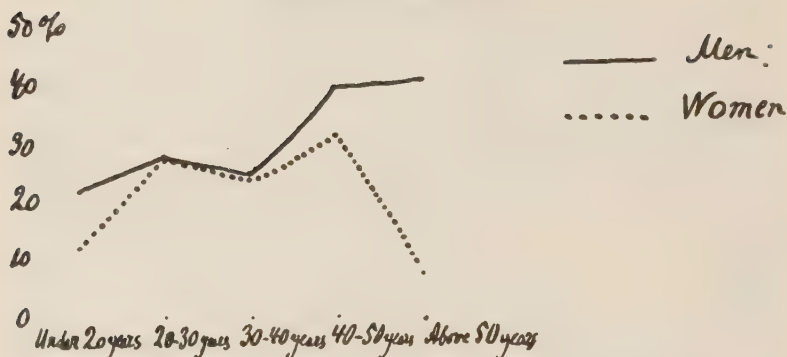
A positive connection between the length of sleep and the sensori-motor equilibrium can be illustrated by the fact that the largest percentage of cases showing reduction in the coefficient of sensori-motor harmony coincides with those groups where a comparatively shorter period of sleep is observed. We saw (Table XIV, Diagrams IV and V) that with age (and especially so after 40) the length of sleep diminishes. Parallel with this increases the percentage of the cases of a marked distortion of the sensori-motor harmony (Table XIX, Diagram IX).

TABLE XIX.

Variations, with Age, of the Percentage of the Cases of a Decrease of Sensori-Motor Equilibrium.

	Age.				
	Under 20 Years.	20-30 Years.	30-40 Years.	40-50 Years.	Above 50 Years.
Men—					
Number of observations	346	516	524	187	51
Cases of a decrease of sensori-motor equilibrium	80 (23%)	145 (28%)	131 (25%)	76 (41%)	22 (43%)
Women—					
Number of observations	168	255	225	108	28
Cases of a decrease of sensori-motor equilibrium	21 (13%)	68 (27%)	53 (24%)	36 (33%)	2 (7%)
Men and Women—					
Number of observations	514	771	749	295	79
Cases of a decrease of sensori-motor equilibrium	101 (20%)	213 (27.5%)	184 (24.5%)	112 (38%)	24 (30%)

DIAGRAM IX. (TABLE XIX.)



The duration of sleep in women, on the average, exceeds by a little the length of sleep among men (Table XIII, Diagram IV). Correspondingly, the percentage of cases of the decrease of the coefficient of the sensori-motor harmony among men is somewhat larger than among women (Table XIX, Diagram IX).

The following table (Table XX) gives a percentage summary of the cases of decrease in the coefficient of sensori-motor harmony (below 80) in persons of different age, sex, occupation and place of abode.

TABLE XX.

Percentage of the Number of Cases of the Decrease of Sensori-Motor Harmony.

	Men.		Women.		Men.		Women.	
	From Moscow.	From Other Places.	From Moscow.	From Other Places.	Manual Labour.	Mental Labour.	Manual Labour.	Mental Labour.
	%	%	%	%	%	%	%	%
Under 20 years	20.0	25.0	12.0	13.0	18.5	13.5	12.0	12.0
20-30 years	27.0	29.0	25.0	28.0	36.0	26.5	23.0	27.5
30-40 years	22.0	27.5	23.0	24.5	20.5	25.5	27.0	22.5
40-50 years	40.0	42.0	37.0	22.0	31.5	37.5	37.0	32.5
Above 50 years	73.0	12.0	9.0	—	12.0	40.0	—	9.0

Our preliminary researches published in the book "Psychical Fatigue": State Publishing House, 1929, and in other works showed that the decrease of the coefficient of sensori-motor harmony below 80 is a typical sign of psychical fatigue. If the cases of distortion of the sensori-motor equilibrium are often encountered amongst persons of the examined groups, we have a right to suppose the presence of some unfavourable conditions

lowering the psychical efficiency of the examined group. Our preceding experiences allow us to ascertain that in some groups examined by the method of sensori-motor harmony the distortion of equilibrium of the abovementioned type is not more than 15%, so that we can speak only of *insignificant signs of psychical fatigue*, not hindering this group, on the whole, from revealing great efficiency. The presence of cases with a decreased sensori-motor harmony of 16% to 31% is considered as a sign of *normal fatigue*, which is easily removed by the ordinary conditions of sleep; 32% to 50% of similar cases in a certain group allows us to characterize it as being in a state of *intense fatigue*, and a number of cases above 50% shows an *excessive fatigue*.

Appraising from this point of view the material gathered by radio and shown in Table XVII we see that only groups of women, under 20 years of age, give us quite a favourable picture of psychical equilibrium. In other groups, in a more or less degree, signs of psychical fatigue are to be seen, and up to 40 years these groups, in general, can be characterized as being in a state of normal fatigue; but amongst the examined groups of persons from 40 to 50 years of age (especially men) marked fatigue is permanently observed, and above 50 years of age a group of Moscow subjects doing mental work shows plain signs of excessive fatigue.

If we remember that our experiments were made in the morning, after washing and two minutes' walking, it is hardly possible not to consider our data from the point of view of social hygiene.

(To be continued in June issue.)

GREGARIOUSNESS: A CRITICAL EXAMINATION OF THE CONCEPT OF THE GREGARIOUS INSTINCT.

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TAKING a cue from the writings of the late W. H. R. Rivers the present writer undertook a critical investigation of social behaviour with a view to discovering whether the facts demanded the postulation of a herd or gregarious instinct. The results of this inquiry were submitted as a thesis in the annual examinations of the University of New Zealand, and something in the nature of a summary is here attempted. A survey of current usage made it clear that there are implicit, in the various discussions, two different conceptualisings of the gregarious instinct which have not been clearly distinguished. It is assumed to be active either (1) in bringing members of a species together, or (2) in organising the group so formed.

Both suggestions were considered, and the inquiry was prosecuted as to whether either or both being taken, social behaviour is to be regarded as the result of the activity of a herd instinct.

The answer to this question was sought at all levels on which social existence has appeared: (1) the level of multicellularity, (2) the level of insect society, (3) the level of animal society, (4) the level of human society.

Owing to the doubtful validity of reasoning which employs the results achieved on one level as arguments in another, the practice was avoided and the work fell into four practically water-tight compartments. Thus it becomes practical to reproduce in this short article merely the last section, *viz.*, the investigation of social phenomena in human society. However, a few words indicative of the general trend of the sections not reproduced may be permitted.

Many observers have noticed that social animals behave instinctively and they seem immediately to have concluded that this activity is due to a herd instinct. We find no reason to doubt that social behaviour does exhibit instinctive motivation, but we believe that this impetus is derived, not from a herd instinct, but from the three primitive instinctive tendencies of nutrition, reproduction and self-protection.

We attempt to show that the so-called herd instinct is reducible to more primitive urges, and that the facts do not render it necessary as a separate concept.

As the validity of our conclusions therefore is not based on any special definition of instinct in general, no preliminary survey of the wider theme is undertaken.

A discussion of the origin of multicellularity was undertaken because W. Trotter in his "Instincts of the Herd in Peace and War" made use of the phenomena as supporting his view that a herd instinct is necessary to explain social behaviour. The inquiry, however, led us to the belief that multicellularity is a function of nutrition.

The work of Julian Huxley set out in his "Individual in the Animal Kingdom" furnished much support for our contention.

The study of insect society yielded evidence of a very decisive kind. The works of W. M. Wheeler especially furnished us with facts which strongly supported the belief that insects are not instinctively gregarious. We were able to cite evidence which seemed to clinch our argument. The host-guest relation and the phenomena of parasitism among ants seemed to dispose of the concept of the gregarious instinct by furnishing strong negative instances. Gregarious behaviour among ants was viewed as being conditioned by nutritional factors such as reciprocal feeding. The phenomena connected with polymorphism were also traced back to nutritional factors.

In animal society the important factor in social behaviour was found to be defence. We discovered that group action tended to appear in danger situations. This line of approach was supported on all hands by such writers as Kohler and Yerkes. The organisations of society we found to consist in modifications of the fundamental urges of nutrition, reproduction and self-protection in a social environment.

Such were the general results of somewhat extended inquiries, and we may now pass to a detailed consideration of the phenomena of human society.

HUMAN SOCIETY.

Now we must come to the heart of our discussion in an investigation of the social habits of men. Are human beings impelled by a gregarious instinct? Most writers, who hold the view that man is instinctively gregarious, lean back for inspiration and proof of their contention on the alleged instinctive gregariousness of animals. If animals are such, then the evolutionary hypothesis would lead us to expect that

men are also, although intelligent modification of instinctive response must be cited as the cause of the non-appearance of plain evidence of the pure instinctive response.

So far in our investigations in this inquiry, we have found what seems to be strong evidence for the denial that any gregarious instinct works in directing animal behaviour. If this contention be supported, then one finds it difficult to imagine that anyone would see his way clear to postulate a gregarious instinct as a necessary explanation of human social behaviour.

Nevertheless, we must carry out our investigations, and will seek to show here, as in other sections, that the social phenomena among men derive their instinctive weight from the great urges of nutrition, self-protection and reproduction.

Let us then come to grips with the topic by asking the question: What are the phenomena of human society? Trotter, under the head of "Characters of the Gregarious Animal Displayed by Man",¹ points out the following phenomena:

1. Intolerance and fear of solitude, physical and mental, which are "effectually solaced by the nearness and agreement of the herd", although man's deeper needs cannot be solaced in society as far as he has been endowed with and gains expression through the inherent religious feeling.
2. Greater sensitivity to the voice of the herd than to any other influence.
3. Subjection to the passions of the pack in mob violence and the passions of the herd in his panics.
4. Remarkable susceptibility to leadership.
5. Relationships of fellow to fellow are dependent on mutual recognition as members of the herd.

We have had reason in the course of this discussion to point out that whereas the great instinctive drives of Nutrition, Self-protection and Reproduction are connected with specialised structural conditions and with specialised and unique functions, no specialised structure or function can be found for any gregarious Instinct. We have found reason to believe that the phenomena of gregariousness are in reality modifications, which have arisen in society, of the reactions empowered by the three fundamental urges.

If this contention be true, then the phenomena cited by Trotter as instinctive gregarious factors in man must be shown to be conditionings of the responses due to more fundamental mechanisms.

¹ Trotter: "Instincts of the Herd in Peace and War", p. 112 ff.

The first characteristic Trotter mentions is fear of solitude. This fear is also extended to cover intellectual isolation. Now it is clear that we cannot regard this latter as fundamentally instinctive, in so far as intellectual life presupposes and follows in evolutionary time instinctive life. If intellectual solitude is feared because of some instinctive disposition, then we must postulate some modification of a more original instinctive fear of loneliness. Thus, if we find reason to reject physical loneliness as arising from the working of a gregarious instinct, intellectual loneliness will, *ipso facto*, be removed from dependence on that instinct.

Now Trotter himself speaks of this emotional condition as fear, and in so doing seems on the surface to connect it with self-preservation. We do not fear loneliness as such. To be alone is not necessarily to be afraid. James goes so far as to wonder whether we should not postulate an instinct of loneliness, and we all know how, on many occasions, we have desired to be alone. The wilderness has been attractive to many throughout the ages, and in the wilderness often ideals have been developed which have led to the uplift of society. In fact, it seems, to a large extent, to be true that our great ideas have come from solitary men and women, who achieved the results of their genius "far from the madding crowd's ignoble strife".

Fear of solitude depends on the environment. A solitary person is not afraid in a harmless environment, although he may be bored because he lacks means of expressing those characteristics developed through the social medium, *e.g.*, language and corporate amusement. Again, our loneliness becomes most fearful at night rather than during the day, and in the dark shadows of night familiar objects become invested with new and dangerous significance. A creaking of a board or the patter of a mouse's feet on the ceiling becomes invested almost with unearthly meaning. At night we are not afraid of loneliness *qua* loneliness, but we are afraid of being taken unawares by some danger. We are not afraid when we are together, because we have learned to depend on the social protective habit.

Fear of solitude reaches its height in a danger situation. If danger is about we hate to be alone, and we do not rest until we have associated ourselves with others, upon whom we rely to assist in mutual defence.

Thus, we would admit that fear of solitude has an instinctive basis, but not a gregarious instinctive basis. It is a result of the working of the self-protective instinct.

Trotter's second point arises from the belief that a member of a herd is more sensitive to the voice of the herd than to any other influence. He writes: "It can make him acquiesce in his own punishment and embrace his executioner, submit to poverty, bow to tyranny, and sink without complaint under starvation. Not merely can it make him accept hardship and suffering unresistingly, but it can make him accept as truth the explanation that his perfectly preventable afflictions are sublimely just and gentle. It is this acme of the power of herd suggestion that is, perhaps, the most absolutely incontestable proof of the profoundly gregarious nature of man. That a creature of strong appetites and luxurious desires should come to tolerate uncomplainingly his empty belly, his chattering teeth, his naked limbs, and his hard bed, is miracle enough. What are we to say of a force which, when he is told by the full-fed and well-warmed that his state is the more blessed, can make him answer: 'How beautiful! How true!'"

"In the face of so effectual a negation, not merely of experience and common sense, but also of actual hunger and privation, it is not possible to set any limits to the power of the herd over the individual."¹

In this and many other passages in his work, Trotter has simply used the concept of a gregarious instinct as a portmanteau into which to cram odds and ends of all types. By the gregarious instinct he seems to mean the "social heritage".

We have here a tremendous muddling of discrete mechanisms, together with striking assertions, the moral truth of which has a tendency to cast a halo of verity over the whole exposition.

We have the assertion of the power of suggestion. This, according to Trotter, is the real proof of man's instinctive gregariousness. But is it? The social habit has persevered in its multifarious forms because it has been successful in assuring the preservation of the species. It is not to be wondered at, then, that individuals in a herd have come to respect and to depend on society. It cannot be denied that there is, in normal social man, a wholehearted respect for public opinion, and it is this trust which leads to the acceptance of suggestion by members of a group.

We do not need, for our purposes, to enter upon a full discussion of the phenomena of suggestion, but we must point out that suggestion is not merely a social phenomenon. Besides mass suggestion and suggestion from one individual

¹ Trotter, *op. cit.*, pp. 114-115.

to another, we have auto-suggestion. Plainly, then, suggestion is not to be explained by postulating a gregarious instinct.

In our discussion of gregarious animals, we mentioned that some ungulates receive the suggestion of flight from birds which rest on their backs. The sudden flight and danger cries of these birds are sufficient to induce the ungulates to fly, although they have not themselves perceived the danger. Plainly, here we have the ungulates implicitly interpreting, if unconsciously, the behaviour of the birds as a warning of danger. Surely, we could not for a moment entertain the belief that this suggestion was made possible by a gregarious instinct. The behaviour is plainly a modification of the self-preservational behaviour of the species.

Suggestion, then, would seem to be a much wider concept than the gregarious instinct.

Rivers, in his "Instinct and the Unconscious", tries to limit real suggestion within the scope of a gregarious instinct and to regard all conscious suggestion as artificial.¹ This procedure seems to lead to confusion. In his following discussion of suggestion this writer seems inclined to believe that unconscious suggestion within a herd is on all fours with mind reading in modern society. Thus, he defines suggestion as "the process which enables every member of the group to intuit what is passing in the minds of the other members of the group".² This seems extraordinarily fantastic and implies a complicated mechanism working in animal behaviour, which is just incredible.

Latterly we have been convinced that so-called mind reading is really "muscle reading" and that consciously, or unconsciously, the alleged mind reader interprets the thought from its minute muscular expressions.³ The literature on calculating horses and performing dogs and professional mind readers gives ample evidence of this fact.

Rivers is much impressed by the unhesitating way in which the savages of Vella Lavella man their canoes. He thinks that here there is working some social intuition. Malinowski in his "Argonauts of the Western Pacific" and Fortune in his "Sorcerers of Dobu" do not find it necessary to postulate a social intuition in these cases. It must be remembered that in primitive societies, life is lived on a simple level and modes of reaction become stereotyped. It is natural, then, to suppose that the natives will be able to sense from minute muscular movements and tendencies whether a certain line of action is to be adopted or not.

¹ W. H. R. Rivers: "Instinct and the Unconscious", p. 92 ff.

² *Ibid.*, p. 91.

³ Rivers allows this point.

But this is strictly outside our province, and we do not need to go any further along that line of argument. Enough has been said to make it extremely unlikely that the phenomena of suggestion form the most absolutely incontestable proof of the profoundly gregarious nature of man, while this gregarious nature is postulated as instinctive.

When Trotter speaks of man's acceptance in society of modes of life which individually he desires to reject, he lumps together phenomena due to two factors. The martyr willingly goes to his death in a society which considers him an evil. His willingness to suffer at the hands of society is not due to herd suggestion surely, but is due to the moral power of the martyr's ideal. In many cases of privation accepted within society and for society's sake, the motive power is the force of the ideal. It seems difficult to believe that society could suggest a line of action on a higher plane than that on which it normally lives. The idealist has usually to fight public opinion, for public opinion is most conservative.

Again, another factor may produce acceptance of privation by individuals in a society, *viz.*, fear. An individual may accept unfavourable conditions because he is afraid to oppose public opinion. The very fact that such suffering individuals unite in a strike shows that they are aware that they will encounter opposition and united they hope to force the issue, while a solitary attack on the problem would lead them to lose their situations, and thus to end in worse privation.¹ Of course an individual thus deprived may accept a suggestion that his privation is beautiful, and this illustrates the need we feel for a rationalisation of our attitude that will help us to cease regarding ourselves as cowards. Sometimes

"Fame is the spur that the clear spirit doth raise
(That last infirmity of noble minds)
To scorn delights . . ."

Thus a man may endure social privation through the powerful attraction of ascetic ideals, or he may accept a life of meagre proportions because he fears to oppose public opinion, and fears to be driven away from the society which protects him and gives him expression for the secondary needs which have been developed over years of social life. Man does not bear with the unfulfilment of his primitive needs because he is instinctively gregarious.

Trotter makes subjection to mass passion his third characteristic of human society. This characteristic is usually termed "sympathy", using the word in its original sense of "feeling with". On this point McDougall writes: "Sympa-

¹ Thus the maxim "If we don't hang together we will hang singly".

thetic induction of emotion is displayed in the simplest and most unmistakable fashion by many, probably by all, of the gregarious animals; and it is easy to understand how greatly it aids them in their struggle for existence."¹

We have referred to this factor of the sympathetic induction of emotions in the section dealing with social animals and we have shown that this sympathy is not limited to social animals, but is a wider factor including in its scope solitary and gregarious animals. Such sympathy is not limited to the animal societies and so it cannot be regarded as deriving its instinctive weight from gregariousness.

McDougall does not believe that sympathy is instinctive. He thinks that "the facts compel us to assume that in the gregarious animals each of the principal instincts has a special perceptual inlet (or recipient afferent part) that is adapted to receive and to elaborate the sense impressions made by the expressions of the same instinct in other animals of the same species."²

McDougall is wrong, as we have seen, in limiting these phenomena to gregarious animals of the same species, for some ungulates become alarmed when the birds on their backs react to danger. Also, a panic spreads among animals of totally different species, solitary and gregarious. This writer goes on to trace the influence of this factor in human society, and declares that the sympathetic induction of emotion is the root of the tremendously developed human sympathy. He cites the fact of a child's sympathetic emotions, and no doubt this is true, but we must remember that emotions cannot be sympathetically induced to the same extent in children at all stages of development. McDougall also refers to the contagion of a smile and the saddening effect of another's gloom.

Undoubtedly, however, human sympathy has long ceased, in its highest manifestations, to be merely the sympathetic induction of emotion. Man has rationalised sympathy to some extent and has translated it into the moral sphere, delineating it by means of explanations in terms of the ideal. How our evolutionary friends forget this factor!

Before we leave this topic we must refer briefly to mass panics and attacks among men. To refer to these phenomena as panics and attacks immediately points to the instinct of self-preservation as providing the internal dynamic. Panics are conditioned by the sympathetic induction of fear, and the building up of the emotion in a crowd. Mass destruction is motivated in an exactly parallel way, except that mass attacks

¹ McDougall: "Social Psychology", p. 79.

² *Ibid.*, p. 80.

are usually dependent on leadership, while panics are not so dependent. Thus, we speak of inciting to violence, but not to flight. S. H. Prince in his "Catastrophe and Social Change—Based upon a Sociological Study of the Halifax Disaster",¹ gives a fine example of panic. This writer believes that "The gregarious instinct—the instinct to herd—showed itself in the spontaneous groupings which came about and which seemed, somehow, to be associated with security from further harm. The refugees found comfort in the group. They rarely remained alone."

Such a statement plainly bases this grouping on the self-preservational instinct.

The Halifax panic was leaderless, and we cannot imagine a panic that was not primarily an individual matter—a *sauve qui peut* reaction. When the captain's leadership is unavailing in a sea disaster, it is everyone for himself. On the other hand, we find it difficult to imagine a leaderless attack in developed society. We have cited examples of mass attacks among apes,² but as we have sought to show, these attacks are really conditioned by fear. Usually attack requires some degree of organisation, and in human society this usually requires an organising leader. Thus we find definite leadership in time of war. The obedience of the rank and file is not instinctive, for if it were, there would be no need for the stern example of death for deserters. The army is kept together, when it attacks, by discipline, which is based primarily on fear of punishment for desertion. When the army flees in panic, leadership is bankrupt, and the instinct for self-preservation carries the day.

In Trotter's account of the social phenomena in time of war, he seems to neglect entirely this enforced discipline.

The above discussion leads us back to a standpoint which we adopted earlier, *viz.*, that the social habit arises in crisis. Men live in a loosely connected community in normal times, and each prefers a few intimates to a great crowd. In fact, we often feel very much alone in a crowd. In times of danger, however, men tend to mass in crowds. It is significant that Trotter uses the occasion of the Great War—a danger situation—to provide the most outstanding phenomena of the social habit. Again, Aldrich in his "Primitive Mind and Modern Civilization", writes a chapter under the heading "Fear Consolidates the Group". We have, then, good reasons, even from the observations of such herd instinct champions, to

¹ "Columbia University Studies in History, Economics and Public Law", Vol. XCIV, 1920.

² See Kohler's "Mentality of Apes".

refer the phenomena of mass behaviour to the instinct for self-preservation.

In closing this discussion of sympathy, we may point out that sympathy, in its popular use, may be found not only among some gregarious animals, *e.g.*, the viscachas and higher apes, and man, but also among some solitary animals in protection of their own young and foster children. Thus, sympathy, even if it were instinctive, could not be forced under the scope of a gregarious instinct.

Now we take up the next gregarious characteristic suggested by Trotter. He says social man is very susceptible to leadership. Trotter admits that leadership arises usually in crisis. "A people at war feels the need of direction much more intensely than a people at peace, and, as always, they want someone who appeals to their instinctive feeling of being directed, comparatively regardless of whether he is able, in fact, to direct."¹

McDougall believes that greater degrees of suggestibility may arise from four factors, of which two concern us here, *viz.*, "a deficiency of knowledge or convictions relating to the topic in regard to which the suggestion is made, and imperfect organisation of knowledge", and "the impressive character of the source from which the suggested proposition is communicated".

Thus it becomes clear that people feel the necessity of leadership in situations with which they cannot cope, or when they feel that they must act and do not know what action to launch upon. People in such ignorance and bewilderment naturally look for a lead to those whose knowledge and confidence is strong. Of course the mob usually reckons to these inner virtues from outer signs, and is often led astray in its seeking for leadership. This factor also explains the caprice of mobs, and reminds us of the procession of ousted leaders to the guillotine during the French Revolution. As soon as a leader ceased to appear confident and able to solve the questions on the table, his leadership was rejected by the mob.

Le Bon in his classic work "The Crowd" shows in his chapter dealing with the arousal of faith in a crowd, how much importance must be placed on the confident bearing of the leader. For his influence to be lasting, he himself must be fascinated by some creed. "The men of ardent convictions, who have stirred the soul of crowds, the Peter the Hermits, the Luthers, the Savaranolas, the men of the

¹ Trotter, *op. cit.*, p. 117.

French Revolution, have only exercised their fascination after having been themselves fascinated first of all by a creed. They are then able to call up that formidable force known as faith, which renders a man the absolute slave of his dream."¹

Such a description leads us to wonder whether, if a gregarious instinct were postulated to explain the behaviour of a crowd in following a leader, another instinct would not have to be evoked to explain the leader's behaviour in leading the crowd.

The tendency to follow the leader is thus fundamentally dependent on the presence of a situation in which a mob feels compelled to act and does not know how to act. A good deal of the rational enters the phenomena here, as Trotter agrees,² but he believes that in choosing a leader the mob behaves instinctively. Here we disagree, for it is the belief of the present writer that the choice of a leader, while it may depend on unconscious perception of his outward manifestations of knowledge of the question at issue and his confident bearing, is not to be explained by a gregarious instinct. The whole situation derives its instinctive weight from the self-preservational instinctive disposition.

The general tendency to follow a lead is part of the wider tendency to imitate, and the three tendencies of Suggestion, Sympathy and Imitation, are usually grouped together. Rivers and McDougall regard them as the cognitive, affective and conative aspects of the one phenomenon. They explain how one individual comes to influence another. Our contention is that these tendencies are not due to a gregarious instinct. Imitation is a universal tendency of solitary, as well as gregarious, animals, and its presence is plain in the play of the young of most animals.

The tendency to imitate is due to there being a need, on the part of individuals, to cope with a situation that is bewildering or dangerous.

Trotter's final point may be dismissed quickly. He states that the relations of one member of a group to his fellows "are dependent on the recognition of him as a member of the herd". We have found that this fact is common to most animal groups, and is conditioned, not by a herd instinct, but by suspicion or fear of a new arrival, whether he be of the same species or not. It is a playing safe, which originates from the instinct of self-preservation. In primitive society, where witchcraft as well as strength was feared, this suspicious attitude was the cause of the elaborate overtures of

¹ Le Bon, "The Crowd", pp. 133-137.

² Trotter, *op. cit.*, pp. 116-116.

friendship required before a new arrival was welcomed. This consideration of the phenomena cited by Trotter is admittedly very sketchy and somewhat incoherent, but our purpose does not cover a full explanation of these factors and tendencies. Enough has been said to show that they can be usefully described without the postulation of a herd instinct.

A certain amount of confusion has been introduced into the study of social psychology by the failure to classify social behaviour in some important respects. For example, and specially important for us, is the failure to distinguish crowd behaviour from ordinary social life. Le Bon, Everitt Martin, McDougall and many others, notice the difference which becomes evident when a society becomes a mob. Earlier we referred to the fact that men do not live in mobs, and are often lonely in a crowd, and we expressed the belief that mob behaviour arises only in crisis, usually in a danger situation. Now we must come closer to this problem.

Everitt Dean Martin writes: "The crowd, while it is a social phenomenon, differs greatly from the social as such. People may be social—the family is an example of this—without being a crowd either in thought or action. Again, a crowd—a mob is an example of this—may be distinctly anti-social, if we attach any ethical meaning to the term. Both the individual and society suffer, as we shall see, from crowd behaviour. I know of nothing which to-day so menaces, not only the values of civilisation, but also—it is the same thing in other words, perhaps—the achievement of personality and true knowledge of self, as the growing habit of behaving in crowds."¹

Now, if both ordinary social behaviour and mob behaviour are to be explained by a gregarious instinct, then we are led into the impossible situation where the instinct destroys itself.

It does not seem possible to hold that ordinary social behaviour can be lumped under the same heading as mob behaviour. Some writers have pointed out that in human society the tendency has been to individualise. The development has been towards heterogeneity and not homogeneity. This contention seems to merit our support, for we all like to develop our own personalities, and many of us hate to be reckoned one of the mob.

Thus, writers who have sought to establish the case for a herd instinct, seek for their facts in primitive societies and in the behaviour of children.

¹ Everitt Dean Martin, "The Behaviour of Crowds", p. 6.

With respect to primitive society, it seems clear from the voluminous literature on the question that the behaviour is on all fours with mob behaviour in modern life. Freud writes: "Some other features in Le Bon's description show in a clear light how well justified is the identification of the group mind with the mind of primitive people. In groups the most contradictory ideas can exist side by side and tolerate each other, without any conflict arising from the logical contradiction between them. But this is also the case in the unconscious mental life of individuals, of children, and of neurotics, as psycho-analysis has long pointed out. A group, further, is subject to the truly magical power of words; they can evoke the most formidable tempests in the group mind, and are also capable of stilling them. 'Reason and arguments are incapable of combating certain words and formulas. They are uttered with solemnity in the presence of groups, and as soon as they have been pronounced, an expression of respect is visible on every countenance, and all heads are bowed. By many they are considered as natural forces, as supernatural powers.' It is only necessary in this connection to remember the tabu upon names among primitive people, and the magical power which they ascribe to names and words.

"And, finally, groups have never thirsted after truth. They demand illusions, and cannot do without them. They constantly give what is unreal precedence over what is real; they are almost as strongly influenced by what is untrue as by what is true. They have an evident tendency not to distinguish between the two."¹

The mechanisms working in modern crowds and primitive groups are generally taken to be identical, so we do not need to go over the material furnished in answer to Trotter's list of gregarious characters in men.

In primitive human societies, institutions arise which modify behaviour in respect of food seeking, self-protection and reproduction. We have corporate hunting, or gardening, corporate systems of defence, and definite social restrictions as to marriage. These institutions form the social heritage of the primitive man, and to some extent modern man also. It cannot be argued that these institutions arise because men are instinctively gregarious, because social institutions take widely different forms for different peoples. Quite frequently institutions take opposite forms. Some tribes allow promiscuity, *e.g.*, some South Sea Islanders; others cling to

¹ Sigmund Freud, "Group Psychology and the Analysis of the Ego", pp. 18-20.

monogamy. Division of labour is different in different societies, *etc.*, *etc.*

Again, we read frequently of the elaborate initiation ceremonies through which children pass in savage societies before they are admitted into the adult life of the tribe, *e.g.*, Australian aborigines; and also we hear of the education through which children must pass in order to learn their totem and social customs. Surely, if the transmission of this fruitage of the social habit requires language, education and tabu to conserve it for posterity, then it cannot have the weight of an instinct behind it. These are the fruitage of early intellectual efforts.

With respect to the development of the child, it has been assumed, usually, that children pass through a gregarious phase. Those who sought to carry over the concept of a herd instinct from animals to men have been forced to find some place for this tendency in the child. Unfortunately, the child is completely ego-centric at birth, and social characteristics do not develop till later. Of course the child is born in a social group—the family—and so, first by conditioning and later by more rational mechanisms, he begins to behave socially.

The outline of children's social life is very vague and attenuated, and except for one contention we need not discuss the details. It has been held that at ages varying from 11 to 20 boys and girls show the presence of a gregarious instinct in their make-up by forming social groups. This age is called the gang age. To preserve the instinctive basis of this phenomenon, recourse has to be had to the further postulation of the principle of the ripening instinctive dispositions. Now, real sexual behaviour does not appear until after puberty, so it is reasoned instincts may not appear at first, but may ripen later. But, in the case of the sexual instinct, maturation of the tendency is coincident with maturation of the physical organs connected with the working of the instinct. Really, the instinct remains unexpressed until the mechanism for its overt expression becomes available. Heape, it will be remembered, in his "Emigration, Migration and Nomadism", traces this delay of sexual development to a mechanism which prevents gonadal development until a certain physical development is attained.

Now, as we have had reason to mention before, there are no specialisations of structure that point to a gregarious instinct as their controller, so we cannot agree that a gregarious instinct should require time to mature.

Let us now turn to this phenomenon itself. We find, in fact, groups of boys and girls between the ages of 11 and 20. Why are these groups formed? It is our contention that gangs are a revolt against authority. Boys form gangs that, under the protection of numbers, they may disregard the authority of their elders which, individually, they cannot overcome. The codes of gangs, which have been made the subject of clinical study, reveal the mechanisms directed towards this end. J. N. Puffer in "The Boy and His Gangs" gives a tabulation of the rules of sixty-six gangs:

- | | | | |
|----|-------|-------|--|
| 18 | rules | as to | "squealing", snitching, or tale-telling. |
| 8 | " | " | lying to one of the gang. |
| 8 | " | " | standing by each other in trouble. |
| 5 | " | " | divvying-up or paying equal parts of expenses. |
| 3 | " | " | unjust fighting. |
| 2 | " | " | using tobacco. |
| 1 | " | " | swearing. |
| 1 | " | " | stealing. |

From such a list we see how the group is strongly orientated towards the protection of its members from the hand of authority.¹

Again, writers find it difficult to explain, on their hypothesis of a gregarious instinct, why the gang is often shrouded in an atmosphere of fancy, and mystic significations. We point out that at several stages in the development of the child, when its individual desires are baulked by the material world, authority, or convention, self-expression is sought in the realm of fancy. Thus, it becomes plain that the phantasy life of gangs (especially those of girls), is a phenomenon coming under the scope of our contention, that the gang age marks the use of the social habit, in a very obvious way, as a defence mechanism against authority.

This reference to phantasy life easily leads us to a discussion of the conflicts between individual and society, which lead to abnormal states in the individual concerned.

McDougall, in his "Social Psychology", writes: "In considering the claim of any human emotion or impulse to rank as a primary emotion or simple instinctive impulse, we shall find two principles of great assistance. First, if a similar emotion and impulse are clearly displayed in the instinctive activities of the higher animals, that fact will afford a strong presumption that the emotion and impulse are primary and simple; on the other hand, if no such instinctive

¹ Cf. also Trade Unions.

activity occurs among the higher animals, we must suspect the affective state in question of being either a complex composite emotion or no true emotion. Secondly, we must inquire in each case whether the emotion and impulse in question occasionally appear in human beings with morbidly exaggerated intensity, apart from such general hyper-excitability as is displayed by mania. For it would seem that each instinctive disposition, being a relatively independent functional unit, in the constitution of the mind, is capable of morbid hypertrophy or of becoming abnormally excitable, independently of the rest of the mental dispositions and functions."¹

The first criterion cited by McDougall we have already attended to. On purely logical grounds, then, by concluding that the higher animals are not motivated by a gregarious instinct, we have settled the question for humans also. However, for the sake of completeness we must approach the problem of abnormal states, with a view to answering the question whether the concept of a gregarious instinct is needed for explanation of the facts.

Trotter holds that three primary emotions of nutrition, sex and self-preservation rarely, if ever, come into conflict. "They do not remain in action concurrently, but when the circumstances are appropriate for the yielding to one, the others automatically fall into the background, and the governing impulse is absolute master."² Thus, Trotter believes that the emotional life of solitary animals is quite simple. MacCurdy, on the other hand, believes that ego and sex urges may conflict, but his exposition is not very convincing, especially when he seeks to show that "the earliest conflict is probably related to sex, because reproduction involves great sacrifice for a prolonged period to the parent of one sex or the other, or both."³ He goes on to suggest that the measure of responsibility assumed by the parent is offset by the pleasures of copulation. This principle MacCurdy believes to be active in the life of animals. But, as Malinowski has pointed out, some native races in the Western Pacific do not establish the connection between copulation and child bearing, and we should err grievously if we presumed that the animals understood the connection. Yerkes tells in "The Great Apes" of the bewilderment of a parent ape when her first offspring is born.

MacCurdy does not give any evidence of real conflict between primary instinctive dispositions, and we need not

¹ McDougall, "Social Psychology", p. 42.

² Trotter, *op. cit.*, p. 47.

³ MacCurdy, "Problems of Dynamic Psychology", p. 349.

conclude that conflict must be between instincts. Or, in other words, we must not say that because the social heritage conflicts with primitive instinctive tendencies, the former is based on a gregarious instinct. Moreover, many types of conflict which lead to neurotic conditions are between ego instincts and dominating parental teaching.

Trotter believes that the herd instinct has the capacity of conferring the sanctions of instinct upon acts by no means necessarily acceptable to the body or mind. Thus, Trotter seeks to escape from the difficulty which he has been led into by postulating a gregarious instinct working "upon the individual from without".¹ This belief is just a guess, and the likelihood of its being true is very small.

Conflicts do arise between elements in the social heritage and egoistic instinctive tendencies, but that does not mean that the social heritage is based on the gregarious instinct. That belief, as we have seen, cannot be sustained on other grounds.

To put the question in Freudian terms, we may say that conflict arises between the id and the ego ideal. The ego ideal is drawn, to some extent, from the social heritage, *i.e.*, the customs of tribe or group, *etc.*, and so the social habit becomes supremely important from the standpoint of abnormal psychology. This is all admitted, and Freud² agrees that Trotter is right when he says that repression is due to the herd instinct if, by herd instinct, we mean the social heritage as formulating the individual ego ideal.

This brings us back again to Trotter's unfortunate method of sweeping all that is social under the mat of the herd instinct.

So far in this section we have been endeavouring to show that the society of men, from the point of view of corporate behaviour, is explicable without the herd instinct. It now remains to ask the question whether the herd instinct does not work in the genesis of society.

Much controversy has raged over the question of the genesis of society. Freud, in his works "Totem and Tabu" and "Group Psychology and the Analysis of the Ego", supports the contention that originally men lived in primal hordes, each horde being under the authority of one old man. The domineering attitude of this stern parent to his male offspring, and his monopolising of all the women of the horde, eventually led to an alliance being formed by the brothers, which ended in the murder of the father. This brotherhood alliance Freud believes to be the basis of society. We need

¹ Trotter, *op. cit.*, p. 48.

² Freud, *op. cit.*, p. 105.

not go further into Freud's interesting work, except, perhaps, to point out how well his treatment explains the phenomena of group behaviour under a leader. The leader really takes the place of the individual ego ideal and thus, responsibility being placed on his shoulders, individuals in the group feel free to obey primitive urges which, in isolation from the leader group, they would be forced, by fear of consequences, to repress.

Other writers point to the fire as being an important factor in the genesis of society. H. J. Fleure, writing on "The Primitive Community and Origins of Races" in *Harmsworth's Universal History*,¹ writes: "The fire was a social centre, a promoter of intercourse and of language, a defence against wild beasts, and a help to the women in the rearing of their babies. Who knows how early in cool regions the woman-guardian of the social fire may not have become a feature of group life, a far-off precursor of the vestals of Roman history?"

"When the hunters had luck, there was work to do around the home fire."

Again, when man was dependent for food upon his ability to kill huge animals, it is obvious that corporate hunting would be resorted to.

Still again, the human child is born into an incipient society, and through its long period of enforced dependence on its parents, a rudimentary social life begins.

In early days man was more the hunted than the hunter, and it is easy to see how corporate defence mechanisms came to show themselves. Also, when man began to fear, not only the dangerous animals, *etc.*, but also mysterious and magical "unseens", then the group was strongly cemented together by the belief that punishment for an individual breach of tabu would be visited on the whole tribe.

Also, primitive men seem to have lived in hostility to other tribes and self defence became an affair of the tribe. Recent conversations with an enlightened missionary from Bougainville, conveyed to the present writer a vivid impression of fear as the consolidating factor of the group. Tribes in Bougainville are restricted to definite territories, and no one member of a tribe dares to invade the territory rights of another tribe. Thus the natives know nothing of the geography of their island home outside their own territory. Boys cannot be prevailed upon to accompany the missionary to other islands unless they go as a group. This excessive communism and

¹ Vol. I, p. 188.

the tribal ownership of property stand as a bar to progress and resist individualisation.

We do not need to choose between these theories, for they are really complementary. The social habit arose as an adaptation to an environment, having the special characteristics outlined above. Of course other factors may be working as well, but there is no compulsion upon us to postulate a herd instinct.

Thus, whether we consider human society with respect to its genesis, or its institutions, we do not feel it necessary to postulate a herd instinct.

CONCLUSION.

Let us now very briefly review the ground over which we have travelled. As the conclusions arrived at in each section are along the same interpretative line, this summary may be very brief.

We commenced by observing that a herd instinct might be conceived as working in one or both of two ways.

1. A herd instinct may work in bringing members of a species together.
2. It may work in organising the society thus formed.

With regard to the first possibility, we have found in all the sections that the social habit is on all fours with any other adaptation that animals have made to their environment. We see no more reason for postulating a herd instinct to explain the social adaptation than we do to postulate a special instinct to explain why men walked upright or why they built houses, or used clothes.

With respect to the second possible interpretation of the concept, we have found evidence in all the sections that convinces us that the institutions of society are the results of modifications of primitive urges to cope with a special environment. Thus we have shown that the social habit tends to appear in crisis, usually in a danger situation.

We have not denied that the social habit has instinctive motivation, but we have shown that this impetus is derived, not from a herd instinct, but from the more primitive instinctive urges of nutrition, reproduction and self-protection.

REVIEWS.

ESQUISSES DE PHILOSOPHIE CRITIQUE. By A. Spir. Introduction by Léon Brunschvicg. Nouvelle édition; Paris, Felix Alcan, 1930. Pp. 167. Price: 15 francs.

This book was first published in 1887, and was originally written in French.

African Spir was a polyglot writer and is usually classed as a contributor to German rather than to French philosophy. He himself was by birth neither French nor German, but Russian. He was born in 1837, and left Russia for Geneva when he was thirty. His principal work was written in German (*Denken und Wirklichkeit*) and attracted the attention of James, Nietzsche and Vaihinger, whose "Philosophy of As If" has points in common with the work of Spir. He also wrote, in German, "*Moralität und Religion*", "*Recht und Unrecht*". His complete works were published in German in 1908 by Barth, Leipzig.

His "Life", by his daughter, Hélène Claparède Spir, published in 1920 in Paris and Switzerland, is a pathetic document. Spir died in 1890 (after writing a second volume, "*Nouvelles Esquisses de Philosophie critique*"), expressing the hope that his death would draw some attention to his writings. An exile, he took residence in Geneva, where he died at the age of fifty-three.

The present "Sketches in Critical Philosophy" were written in French in his fiftieth year. At a time when Spencer in England and Taine in France were at the height of their vogue, Spir was consigned by his contemporaries to an oblivion, more dark than that which menaced the great Renouvier. Now that Spencer and Taine are *passés*, critical thinkers like Spir and Renouvier are coming to their real place in the history of thought.

The more recent work of Vaihinger perhaps makes an understanding of Spir an easier task, for he was the forerunner of the "*Philosophie Als Ob*". Spir has been described as an illusionist, even a morbid illusionist.

Spir has obvious affinities with Kant and his own contemporary, Renouvier, and he attacked what is the essential problem of French (and, indeed, all) philosophy in the nineteenth century, the relation of *science et conscience*. The problem of empiricism on the one hand and idealism on the other, the problem of freedom in a world of physical determinism, the intricacies of the body-mind relation, the relation of society and the individual, and, above all, the place of mind and thought in the whole scheme of things.

Against Spencer, he maintains that philosophy is not a mere synthesis of the sciences, but a discipline whose fundamental data are given in our experience. Strictly accepting the *données* of experience, physical and psychological, he points to the paradox of our own norms of thought. These in their way are as real as the empirical data of science. Philosophy no less than science has, as its end, the knowledge of things, but philosophy includes many things which science by its method and its outlook ignores.

As for knowledge itself, the actual process of knowing, Spir has some sympathy for the Cartesian dualism and comes near to Taine with his view of perception as "*hallucination vraie*".

"Il est donc clair que les corps de notre expérience ne sont pas des objets extérieurs réels, c'est-à-dire existant en dehors et indépendamment de toute perception. Mais tout, dans notre expérience, est organisé comme si les corps que nous percevons existaient indépendamment de toute perception. La "vérité" de nos perceptions normales ne signifie, en fait, que la perfection et l'universalité de la déception qui y réside." (Page 31.)

We are much more ignorant of matter than of our own minds, says Spir, reiterating a point made by Descartes and repeated two years after Spir by Bergson. Our thoughts are much more real than atoms, our moral ideals are more real than our physical nature. Until we recognize this, humanity will be the dupe of the worst illusions, which are already destroying society. No crude materialism will ever satisfy us as individuals, nor can it be a basis for society. Our religious notions are corrupted by the material, by a notion of God as a materialistic engineer, a supermind worthy indeed of the industrial revolutionists, but not worthy of men with noble minds.

Only by the best of our own highest thoughts can we save society, and we can only save society by a genuine philosophy which sees the material world as dross and illusion. Spir denounces modern social tendencies more briefly but as vigorously as Renouvier in his notable *"Science de la Morale"*, which he had probably read and admired as the best book of applied ethics of our time.

In regard to the body-mind relation, Spir has many shrewd things to say, but he seems on unsound ground when he urges that the development of the self is independent of the not-self.

Indeed for Spir all externality is vain and illusory. We do not know external things in themselves. But are we quite sure that we know ourselves? Does the illusion stop at externality?

He is not clear on this question, but if cross-examined he might admit illusion within the self, in the form of passion. But the reasonable self, the rational self has, he claims, no illusions about itself, while it treats all externality as illusion. Spir does not consider that the rational self may, in rationalisation, pursue illusions by finding reasons for them.

For Spir, sense experience is unreal because it does not satisfy the demands of thought and logic. The norms of thought are illusion in turn because, although they constitute a standard, they have no means of application.

It seems clear that if we start to form a philosophy founded on "the perception of illusion" it is difficult to know where to draw the line between illusion on the one hand and reality on the other.

Spir's book is, however, well worth reading and will stimulate thought on crucial points. He sails in the high latitudes of genuinely critical philosophy and is likely to command far more attention today than in 1887. Thus his touching prayer before death may very well be in process of fulfilment. His very brevity favours his being read.

J. ALEXANDER GUNN.

IMMANUEL KANT'S CRITIQUE OF PURE REASON. Translated by Norman Kemp Smith. London: Macmillan & Co., Ltd.; 1929.

"We may safely conclude from this point of view that it is high time that the present widespread cult of Kant and his successors in academic institutions be greatly reduced, since the excessive cult of this method is not only wasteful of the best thing life has to give

—youth and enthusiasm—but it is pernicious.”¹ Thus wrote Stanley Hall in 1912, after a long experience of what he had come to regard as an evil. Yet in 1929 Professor Norman Kemp Smith publishes a translation of “Kant’s Critique of Pure Reason” that is welcomed by scholars and students alike. If we seek for reasons for this apparent paradox it is not difficult to find two.

In the first place, however decisive and destructive may have been the criticism of the Kantian system, there is something in it that seems to resist the attack of time; even Stanley Hall admits that “a few of its timbers are marvellously sound and can be built into new constructions”.² In the second place, it is generally agreed that the Critique is a difficult book that is not rendered any easier by the long involved sentences that mark its pages in the original; and the earlier translations, such as Meiklejohn’s, though of great assistance to English students of philosophy, had not been wholly successful in giving English form to German thought. The great advance in the present translation becomes at once obvious to the reader; however difficult the philosophical ideas may be to him, the English student will feel that he is dealing with a medium with which he is familiar. This is not to suggest that there is any distortion of Kant’s views; there is a very general consensus of opinion that the translator has been most successful in the most difficult task of presenting the ideas of the author and not merely an interpretation determined by his own philosophical predilections. In such a work this must have been no easy task, for, as one reviewer has tersely said, “a translation which is accurate is likely to be unreadable, while one that is readable is likely to be inaccurate”. It is an achievement, therefore, to have a translation that is at once accurate and readable.

Two other features of the work will be appreciated by English students. Professor Kemp Smith has included in the most convenient form the passages of the first edition that differ from those of the second edition, so that the reader has before him the different formulations that have given rise to such varied comment and criticism. He has also added a most valuable index. Of the value of the book, then, nothing need be said. To understand fully the shades of meaning of the Critique in its original tongue can be expected only of the experts, and even these disagree on many points. In the Preface to his translation, Meiklejohn wrote: “Indeed, Kant’s fate in this country has been a very hard one. Misunderstood by the ablest philosophers of the times, illustrated, explained or translated by the most incompetent, it has been his lot to be either unappreciated, misapprehended or entirely neglected.” Fortunately that time is long past, and hereafter there can be no doubt that the English student who wishes to understand the doctrines of the great Critique will find a very present help in times of difficulty in Professor Kemp Smith’s admirable translation.

T. A. HUNTER.

ETHICAL THEORY. By R. R. P. Barbour, M.A. (Oxon.). Adelaide: The Hassell Press; 1933.

“Ethical Theory” claims to meet the need of students who are broaching the subject of ethics with little or no philosophical training. The book should fulfil that function admirably.

¹ Stanley Hall: “Why Kant is Passing”, *American Journal of Psychology*, Vol. 23, 1912.

² *Ibid.*, p. 425.

The chief important ethical systems are expounded clearly and concisely, and the main criticisms usually brought against them are recorded. The mode of presentation is helpful to the student, for the author shows, in the case of each system, the answer it gives to the two questions, "What ought we to do?" and "Why ought we to do it?"

The standpoint is avowedly Platonic—which may be regarded as a merit or a defect according to the point of view. There is a tendency to underrate the emphasis placed by Kant on the principle of non-contradiction, and also the psychological value of Mill's treatment of the internal sanction and the training of the social sentiment. One is surprised, moreover, to read that Aristotle "somewhat inconsequently" finds the supreme good to consist in the life of contemplation, and to see that Kant is regarded as an idealist.

The book is presumably not intended as a substitute for textbook reading and personal judgments of value, but rather as an excellent aerial photograph of the country the student is about to traverse. Having taken this comprehensive view he will more readily grasp and organize the detail presented in the systems themselves. One can heartily recommend it to students for this purpose.

OLGA M. WARREN.

THE PHILOSOPHY OF DESCARTES. By A. Boyce Gibson, M.A. (Oxon.), Lecturer in Philosophy at the University of Birmingham. London: Methuen and Co.; 1932. Pp. xiii, 382. Price: 12s. 6d.

There has been a tendency, at any rate in England, in treating Descartes as the father of modern philosophy, to neglect him as a philosopher. This book seeks to make good this deficiency. The author's aim is to treat Descartes, not simply as setting the problem for Kant, but as seeking to solve the problem of philosophy as he saw it; in short, to give (for the first time in English) "an account of the philosophy of Descartes, in itself and for itself" (vii). The result is an excellently written book, which no serious student of Descartes can afford to neglect, but of interest to the wider circle of readers who are concerned with the problem which Descartes seeks to solve.

Mr. Gibson devotes his first two chapters to making clear what Descartes' problem was, and how it arose. The two outstanding events of the age, the rise of mathematical physics and the revival of personal religion, made necessary a new reconciliation between theology and science. Descartes considered it his consecrated mission to effect this reconciliation. This mission, the author claims, completely dominated his life and thought. It determines both the substance of his metaphysics and his mode of presenting it. It is even responsible for his apparent insincerity; he was prepared to modify his statement of his doctrine in order to avoid prejudicing the success of his mission.

This conception of Descartes' mission, and the consistent presentation of the whole of his philosophy as an attempt to carry out this mission, represents, at any rate for the English reader, the most striking and original feature of Mr. Gibson's book. This conception leads the author to pay particular attention to Descartes' theology. He is convinced that for Descartes the dominating partner was theology. The problem was to assign to science an independent but subordinate rôle. This is made possible by Descartes' conception of extension as distinct from spirit, on the one hand, and, on the other, by his conception of God as creator. I was particularly impressed by Mr. Gibson's discussion of the latter topic. (Ch. 8.)

Metaphysics, he insists, is for Descartes in last resort nothing but the exhibition of the complete dependence of the universe on God. As this dependence is due to the fact that God creates it, the notion of creation becomes a central conception of metaphysics. Indeed, it forms *the* central conception of metaphysics, for, according to Descartes, it applies also to God Himself. God is self-created, His own efficient cause. "The power of bringing into existence what was not there before, and of doing it over and over again at every instant, is the basic fact of God's nature" (254). This conception has an important bearing on the proofs of the existence of God. It means that there is no arbitrary exception to the doctrine of continuous creation, or to the postulate that there is nothing which has no efficient cause. In creating other things, God is still expressing His own spiritual nature, so that there is something of His nature in all His creations. Descartes does not, however, accept the pantheistic view that "God is all, and all is God". Man is produced after God's image, each soul being regarded as "a mutilated atom of divinity", but he consistently, though perhaps not legitimately, refused to find any trace of divinity in extension.

A natural corollary of Descartes' doctrine of creation is his theory of God's supremacy over the "eternal verities". Descartes will admit neither that these exist from all eternity independent of God, nor that, existing eternally in the mind of God, they determine the form of His creation. To do so would be to regard God as some Saturn subject to the Fates. His statements sometimes suggest that God could have created them otherwise if He had wished to do so. This, however, is to draw an illegitimate distinction between God's will and God's intellect. The origin of the verities, the author insists, "is to be found in the undivided nature of God Himself, and not in His will as opposed to His intellect" (279). This view is required not only by Descartes' conception of God, but also by his conception of science as mechanical explanation.

Mr. Gibson's discussion of these questions is the more valuable in that it is based mainly on parts of Descartes' works with which the ordinary student is not familiar. Its value is not greatly influenced by the tenability or otherwise of Descartes' position. The only point which seems open to question is Mr. Gibson's contention that doctrines of Descartes which do not fit in with his (Mr. Gibson's) conception of Descartes' mission are not "authentic".

My impression is that the author's treatment of the more familiar aspects of the Cartesian philosophy, the "method", the "cogito", and the proofs of the existence of God, is less satisfactory. This seems to be due mainly to his failure to examine closely enough certain of Descartes' conceptions, particularly his conception of doubt, and to a less extent his conception of clear and distinct perception. As a consequence, throughout a large part of his book, he is struggling with a problem which, I believe, is largely of his own making, the problem of the "cartesian circle". Indeed, Mr. Gibson's book might be described as an attempt to interpret Descartes in a way which will, as far as possible, absolve him from the charge of arguing in a circle in that, though it is in order to show that clear and distinct perception is valid that he seeks to prove the existence of God, nevertheless, before he has proved that God exists, he assumes the validity of clear and distinct perception. It is with this end in view that, despite the text, he draws a sharp distinction between the method of science and the method of metaphysics, and between the intuition of the self and the intuition employed in science. These distinctions, which affect his interpretation of the "cogito", of the proofs of the

existence of God and of the "method", in my opinion are not justified by the text, fail to achieve the end for which they were introduced, and are not required. I propose to attempt briefly to justify this opinion.

Clear and distinct perception means in the end perception of implication. Consequently, you cannot doubt the validity of clear and distinct perception without being committed to denying the possibility of inference, and therefore of all argument. It follows that, whenever Descartes makes any inference, advances any argument, gives any reason, he is assuming the validity of clear and distinct perception. [This is true regardless of whether, in the course of the argument, he formulates the assumption as an abstract principle. For the question is not whether he formulates it, but whether he uses it. This meets Mr. Gibson's contention that "if it should be urged that the axioms of logic . . . must be accepted as universal, and are therefore at work in the proof of the existence of God as well as in scientific deduction, the reply is that they are indeed embodied in the structure of reality, but are implicit and concrete, instead of being explicit and abstract" (298).] Consequently, if the "cogito" involves implication, or is established by argument, it presupposes the validity of clear and distinct perception.

Now Descartes certainly holds that the "cogito" is established by argument and involves implication. It is established by the method of doubt. We can see some ground for doubting the existence of the material world and the validity of the demonstrations of mathematics, but we cannot doubt our own existence, for in order to doubt we must be. This clearly is an argument. If argument is not required to establish the "cogito", then, so far as the "cogito" is concerned, the method of doubt, and the whole discussion which precedes the formulation of the "cogito", is utterly irrelevant. Descartes, then, clearly holds that the "cogito" is established by argument.

That he holds that it involves implication is shown in the first place by his formulation of it: "*Cogito, ergo sum.*" The "ergo" is clearly **unjustified** if "cogito" does not imply "sum". Secondly, this is obviously **his view** in the Principles, where he urges, in support of the "cogito", that "**there is a contradiction in conceiving that what thinks does not at the same time as it thinks exist**". (Pr. 1, 7; Haldane and Ross 1, 221.) **Thirdly**, the passage in the Reply to Objections II, on which Mr. Gibson **lays such stress** (85), only confirms my contention. What Descartes is there **pointing out** is that, instead of deducing the "cogito" syllogistically from the **major** "everything that thinks is", we perceive directly that "cogito" **implies "sum"**, and from this infer the general principle that everything that thinks is. (Haldane and Ross, 2, 38.) **Fourthly**, Descartes **points out that in the "cogito" "there is nothing that assures me of its truth, excepting the clear and distinct perception of that which I state"**.

It is clear, therefore, that Descartes holds that the "cogito" involves implication. It is surely equally clear that he is justified in doing so. What the "cogito" maintains is that the existence of the thinking, which I speak of as mine, implies the existence of the thinker of that thought, *i.e.*, implies my existence as subject. If we deny that the "cogito" involves implication, we cannot distinguish between the thinking and the thinker; we must maintain that my existence is simply identical with the thinking I refer to as mine; that to assert that I exist means no more than to assert that this thinking occurs. In that case the proper formula for the "cogito"

would be: "The thinking I refer to as mine occurs". Again, if the "cogito" does not involve implication, we cannot advance from it to anything further; it is useless as a first principle.

The "cogito" is unique in that it argues from the occurrence of thinking to the existence of the subject, whereas science is concerned wholly with the objective. But in both cases the argument is possible only in virtue of the perception of implication. The "cogito", no less than science, assumes the validity of clear and distinct perception. In this respect there is no difference between the intuition of the self and the intuition employed in science.

In considering the distinction between the method of metaphysics and the method of science, we must take into account the proofs of the existence of God. For Mr. Gibson holds that, in these no less than in the "cogito", Descartes is following the method of metaphysics. Now it is obvious that the proofs of the existence of God, if they are proofs at all, must involve inference, argument, implication, and therefore must presuppose the validity of clear and distinct perception. In this respect, therefore, there is no difference between the method of metaphysics and the method of science. Now what Descartes calls his "method" is simply the manner in which we must proceed in any enquiry, in order to make proper use of our clear and distinct perception. It is, therefore, the method of metaphysics no less than of science. That is what Descartes himself always maintains. It is not, as Mr. Gibson suggests, a view which finds expression only in occasional passages, which "either belong to immature phases of Descartes' thought . . . or are traceable to his failure to examine his own metaphysical procedure" (298). It is the doctrine of the third meditation, no less than of the Discourse and *Regulæ*, and so can hardly be dismissed as immature. We can maintain that it does not represent Descartes' own metaphysical procedure only if we are prepared to contend that the "cogito" and proofs of God's existence do not involve implication or inference. Further, it is only if we are prepared to do this that the distinction will absolve Descartes from the charge of arguing in a circle. For whether he is arguing in a circle depends solely on whether the "cogito" and proofs of the existence of God presuppose the validity of clear and distinct perception. Consequently there is no ground for maintaining that Descartes ought to have distinguished between the method of metaphysics and the method of science, unless we are prepared to contend that metaphysics does not involve implication. But in that case metaphysics—the proofs of the existence of God no less than the "cogito"—must be simply a matter of direct inspection of immediate experience; any metaphysical question must be decided in the same way in which I decide whether I have a toothache. We cannot avoid this conclusion by distinguishing, as Mr. Gibson frequently does, between the "order of approach and the order of reality". This distinction, though legitimate where it is only a question of exposition, is not legitimate where it is a question of proof.

Mr. Gibson himself seems in the end to realise that his distinctions fail to realise their end. "The wicked genius", he confesses in a footnote, "threatens not only the specific structure of science, but the structure of any coherent argument whatever. Even metaphysics is not exempt, at least in so far as they involve reasoning. Either, therefore, metaphysics must consist solely of an immediate and simultaneous intuition of the self and of God, or else the method of doubt leads us up to the end of a blind alley and then blocks our retreat behind us" (307).

This conclusion is inevitable if you make the validity of clear and distinct perception depend on the divine guarantee. But it is

necessary to do this only if its validity is open to doubt. A consideration of the nature of doubt, however, shows that it is impossible to doubt the validity of clear and distinct perception. The question is not whether we do in fact doubt its validity, but whether we have any ground for regarding it as doubtful. But anything can constitute a ground for regarding a thing as doubtful only if we can infer from it that the thing is doubtful. But inference is possible only if clear and distinct perception is valid. Consequently it is impossible to put forward any ground for doubting the validity of clear and distinct perception. It follows that the validity of clear and distinct perception does not require the divine guarantee.

It is no doubt true that Descartes does not himself definitely realise this. He does, however, invariably assume that clear and distinct perception is valid. Consequently we must inevitably either distort his argument, or else accuse him of arguing in a circle, if we try to interpret his position in such a way as not to assume the validity of clear and distinct perception until the existence of God has been established. It is only when we realise that clear and distinct perception does not require the divine guarantee that we can form a fair estimate of the value of Descartes' metaphysics.

I have spent so long trying to justify my view on this point that I can only touch briefly on the many other points in Mr. Gibson's stimulating book that I should like to discuss at some length. In the first place Mr. Gibson seems prepared to accept Descartes' account of error as due to the fact that I allow my will to assert what my understanding does not perceive. But surely the following objection is fatal to this view. If I am not aware that I do not perceive what I assert, the defect lies wholly in the understanding, in that it believes it perceives what in fact it does not; if, on the other hand, I am aware that I do not perceive what I assert, I have not fallen into error, but am simply "talking". This defect in Descartes' account of error indicates a fundamental flaw in his conception of judgment, and an ambiguity in his conception of the nature of ideas. Curiously enough, Mr. Gibson never seems to raise the question, What does Descartes mean by an idea?

Secondly, I doubt whether Mr. Gibson is justified in maintaining that Descartes' version of the theory of representative perception, unlike Locke's, is not exposed to Berkeley's criticism, because, on Descartes' view, the existence of the external world is vouched for by our non-sensory apprehension of extension (219). My impression is that all that Descartes claims we know for certain is that material things *may* exist in so far as they are considered as the object of pure mathematics. I prefer Mr. Gibson's earlier description of the theory as "the theory of misrepresentative perception" (79).

As I cannot set out briefly enough my difficulties in regard to Mr. Gibson's treatment of "simple natures", but wish to make it clear that, despite the space I have devoted to criticism, my attitude towards Mr. Gibson's book is mainly appreciative, I will proceed to indicate further points in Mr. Gibson's discussion which I wish specially to commend. The first is his explanation of Descartes' theory of continuous creation, which, he points out, means simply that if there were no God, the moments of the self, which are actually continuous, would then fall apart (129). The second is his discussion of the implications of Descartes' conception of the relation between body and mind (Ch. 7). Finally, there is his treatment of the problems raised by the mathematical interpretation of nature, especially the theory of the "animal-machine" (Ch. 6). I cannot refrain from quoting one sentence: "If a cat is

an automaton when it mews for its milk, why not a man when he shouts for his beer?" (212).

As regards misprints of some importance: Should "Brett" (6n, 16n, index) read "Burt"? Should "it" (116, l. 14) read "the category of efficient cause"? Should the first "finite" (250, l. 34) read "infinite"? Should the "not" (280, l. 16) be omitted?

W. A. MERRYLEES.

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